THE

MEDICAL AND SURGICAL REPORTER.

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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

ADDRESS IN SURGERY,

BY ALEX. CRAIG, M. D.,

Of Columbia, Pa.,

Read before the meeting of the Medical Society of Pennsylvania at Norristown, Pa., May 10, 1883.

In the busy rounds of a general practice, where we are expected to keep apace with every branch of our profession, it would be impossible to note all the improvements and discoveries that leave their impress upon the rapidly-revolving wheel of progress; and yet, as I accepted the honor of presenting this report, I have endeavored to record a few of the most valuable as they came to notice during the year.

Much that is written, and that fills the pages of our journals, is composed of first impressions, and an impulsive desire on the part of the author or discoverer to place something new before the profession; and it is probably less my duty to bring before you the things that are new than to cull out those that have been fairly tried and awarded a place in the list of valuables.

In this we meet with some difficulty and diversity of opinion as to what is good and what is not.

In the hands of Ole Bull, the violin was full of harmony and sweet music, whilst in many others its sounds are as unpleasant as his were charming.

So it is with many of the late discoveries. There is a certain amount of skill or aptness required in their use, and what I offer you to-day will be my idea of general opinion, possibly colored somewhat with my own.

As an example of extremes, I know of none more decided than that of the Esmarch bandage. But a few years ago its merits were beyond description. The idea of a bloodless amputation, with empty arteries inviting the ligature, relieved a terrible operation of much of its terror.

Later, we read of the sloughing flaps, the tendency to after-hemorrhage, and a number of other disadvantages that follow its use; and the question arises, is it an appliance of value, or is it not? From my own experience in its use, I would say it is very much as we make it. If judiciously used, it will perform its part most admirably; otherwise, it may be followed with unpleasant complications.

More recently, the theories of Professor Lister have been filling our journals to overflowing, which, like the Esmarch bandage, finds much of its real worth through the manner in which it is used. While no one doubts the efficacy of the various antiseptics, which have been so thoroughly tested of late, and their value amply proven, yet, in the many operations that require immediate attention, it would be almost impossible for the general practitioner to go prepared with a full outfit, as recommended by Professor Lister. The greatest fault to his plan of operating and to his mode of dressing wounds is that it is too cumbersome and complicated for general use. Its redeeming feature and the prominent principle contained in Listerism, and the one that can be used everywhere, and is of real value both to the surgeon and to the patient, is the perfect cleanliness it requires in performing all operations and dressing all wounds.

In the hospital, which should be supplied with all modern conveniences and improvements, and

where cases present themselves daily for surgical treatment, the atomizer, the medicated dressings, and everything that belongs to this doctrine, might well be a part of the paraphernalia, that the patient could have the benefit of it.

While on the subject of antiseptics, I feel it my duty to say a word in favor of the hydrate of choral as a local dressing. I know it is not new, but in my hands it has proved so valuable, and is so seldom mentioned in this capacity, that I wish to introduce it anew to your consideration. Its chief advantages are its freedom from unpleasant odor, its power to arrest the secretion of pus, thus protecting against fetor, and its stimulating qualities, both to the raw surface and to the contused parts surrounding recent injuries.

Corrosive sublimate has recently been used in the capacity of an antiseptic, and is highly recommended and strongly endorsed by those who have tested its virtues. The strength of the solution used is from one part in a thousand, down to one in five thousand.

I take pleasure in referring to the efforts that are being made to teach the laity to give rational and useful aid to persons accidentally injured, prior to the arrival of skilled assistance. When we consider the thousands who are constantly exposed to bodily injury in the mines and on the railroads, and in our workshops, that even the ground is tilled and the crops harvested by machinery capable of doing bodily injury, then we can realize the importance of the proper education and training of the public.

In the heat of battle, where destruction is the order of the day, the surgeon is there prepared and ready to administer to the wants of the wounded; but not so in private life. There we expect to escape injury, and hence go unprepared for it. However, exposed as we are, I can readily see the value of a certain course of general training. From the time of injury until the arrival of the physician, the moments are often very precious, and frequently decide the fate of the injured one.

My reference to this subject is based upon some sad personal experience, and I confess I refer to it somewhat feelingly. Only recently I was obliged to amputate a hand which should and would have been saved if the patient had been properly cared for in the outstart. Indeed, if he had received no attention from his excited companions, it would have been better for him. The case was one of compound fracture of the forearm. Anxious to ascertain the extent of the injury, his associates exposed the affected parts by forcing up the numerous surrounding sleeves. The result of this was free venous hemorrhage from the compression of the veins. To arrest this, the field tourniquet (a dangerous appliance for unskilled hands) was applied with sufficient force to prevent arterial circulation, and kept applied for some hours. Notwithstanding every possible effort was made a few hours after the accident to re-establish circulation, gangrene of the thumb and fingers followed, and amputation at the wrist soon became a necessity. The want of a little knowledge in this business cost this poor man one of the most valuable members of his body.

Although it is said by one of our leading journals "we take no roseate views of the great advantages resulting from elementary surgical instruction to the laity," I confess my faith in the principle, and sincerely trust that the efforts being made in this direction may be crowned with success.

The advantages to be derived by the physician in general practice from the post-graduate lectures offered us by competent teachers is a valuable step forward, and deserving of favorable mention here. Much of their teaching is calculated to illuminate the pathway of the general practitioner through the field of surgery.

As a thorough knowledge of anatomy is an absolute necessity to the surgeon, and as its study from the cadaver is in a manner prohibited by the laws of our State, I do not think it amiss to solicit the influence of this body to procure the passage of a statute that will permit its study without the risks and experience of the past. A law that would be of great service to the physician and surgeon, as well as to the public, is now pending, and deserves our combined influence and encouragement to secure its passage.

Many interesting and daring surgical operations have been reported to us during the past year, of which a large proportion are probably too hazardous to ever become practical. However, where it is the only hope for recovery, and death is otherwise inevitable, I believe the surgeon's knife is as much entitled to a place in the list of remedies as any other, and is justifiable, even though the bowel, the stomach, the liver or heart, are the parts requiring its use. Although the cases of this grave character do not present a large percentage of recoveries, yet enough are reported to justify such operations under certain circumstances.

Cardiac aspiration has been performed during the past year, but I have failed to read of a case that was benefited by it, and look upon it as too hazardous to be entitled to a place in the list of justifiable operations.

Reference is made in the *Medical Record*, for March 10, 1883, to a case of "Extirpation of the gall-bladder" which made a good recovery. For a fuller account of these operations than time will here permit, I will refer to the late report in surgery to the American Medical Society, made at St. Paul, Minn., for the year 1882, by Dr. Wm. A. Byrd, of Quincy, Ill.

Within the past few years one of the most important and valuable operations is that of *nerve stretching*. It has been especially beneficial in chronic sciatica, locomotor ataxia, and certain forms of paralysis, and in the treatment of such cases is entitled to consideration when other means have failed. The operation is a simple one, and not generally followed by any unpleasant results.

The surgeon meets with few more perplexing tasks than the cicatrization of burns, sloughs, or indolent ulcers. For this purpose the art of *sponge grafting* is taking a conspicuous place recently. A very pleasant and satisfactory account of the preparation of the sponge, and of the operation of grafting, will be found in the MEDICAL AND SURGICAL REPORTER for March 10, 1883, quoted from the *Brit. Med. Journal*.

The quality of the sponge, the manner of preparing, and the method of using it, are so well told in the article above mentioned, that I would refer you to it. The New York *Medical Record* for October 7, 1882, page 402, reports a number of interesting cases of this kind, with their treatment and results. The same journal for July 1, 1882, page 11, also gives an account of *skin* grafting, where some of the grafts employed were obtained from the rabbit, while others were human. Those taken from the rabbit adhered more promptly than the others, and showed no trace of their origin.

There is probably no class of injuries more common and certainly none more general than fractures, and none more likely to bring us before the public through the courts of justice; hence, while I may have nothing new to offer, I think it well to keep their consideration constantly before us. The principle of extension and counter-extension, with perfect approximation of the fractured extremities, holds good in all cases; but how to accomplish this is the question to be decided at the patient's bedside. Here we are often obliged to resort to some of Dr. Levis' "Surgical Expedients in Emergencies."

Next to the fractures involving the joints, there are probably none more unpleasant to manage than those of the femur. This is owing largely to the difficulty we have in procuring perfect and continued rest of the parts; also to the action of the strong muscles surrounding, and to the fact that there is but one bone. Experience has taught me that the more simple the dressings to wounds of all kinds the better, so long as we can accomplish the desired end. So far as possible, I think it well never to disturb the original dressing of a fracture.

Get the parts properly and neatly approximated in the start, and endeavor to keep them so. If the seat of fracture can be kept exposed to view it is a great convenience, as you can carefully watch the progress of the case.

I borrowed the idea of a fracture bed from Dr. Truesdale, of Rock Island, Ill., quite a number of years ago, which has yielded such good results in my hands, and especially in fractures of any part of the femur, that I think it worthy of mention.

It is so constructed as to be readily converted into a triple inclined plane—the middle, or thigh plane, being an extension one. The patient is placed on the bed, with the pelvis so fastened to the body plane by means of a belt constructed for the purpose as to prevent any rolling, or lateral motion of the body. The foot of the broken limb is then attached to a suitable foot-piece, and placed in its normal position. The bed is now put into its triple inclined shape and the middle plane extended, by the aid of a cog-wheel and ratchet, until the normal length of the fractured bone is obtained. The lower part of the extension plane is provided with a trap-door for the accommodation of excrement.

By this arrangement it is unnecessary for the patient to be disturbed throughout the treatment, and very rarely have I found it necessary to use either a compress or bandage to the fractured limb.

Like the ordinary double inclined plane, the extension is made at the knee, while the counter extension is made by the weight of the body.

Another unpleasant fracture to manage is that of the patella. My best results in these cases have been treated with the aid of elastic belting. Placing the leg upon an inclined plane, the fragments are approximated, and held as closely as possible by the aid of adhesive strips crossed above the upper fragments, and below the lower one, (as the bone is usually broken transversely) and drawn forcibly together, attaching the ends of the strips to the sides of the knee. Next fix a solid compress immediately above the upper fragment, and another in like manner below the lower, with the aid of adhesive strips, and also with the aid

of adhesives fasten a double thickness of a rubber bandage, similar to the Esmarch roller, below the lower compress, bring it up over both, and fasten it carefully above the upper one, first drawing upward upon the bandage, and pressing the upper piece of bone down to its normal position. This completed, another adhesive strip should be drawn across the patella between the compresses and under the rubber, and attached to the sides of the knee.

The constant contraction of the rubber will soon overcome the retraction of the muscle, and union will follow with but little or no perceptible space between the fragments.

I have always made it a rule in amputations to save a joint when possible, provided I can preserve it with complete motion. I do this first, because the natural joint is better than the artificial one, even though the stump may be shorter than desirable, and also because the farther we operate from the body, the better are the patient's chances for recovery.

To amputate the leg immediately below the attachment of the ligamentum patella, only the head of the fibula will remain, which is likely to turn outward as union of the parts is completed, thus making a prominence that is both unpleasant and annoying when it comes in contact with the side of the socket of the artificial limb. I call your attention to this, because I have not seen it referred to in any work on surgery. The remedy is quite an easy one, for at the time of operating the head of the fibula, having no connection with the knee-joint, can readily be removed, leaving a neater stump, and thus obviating all the troubles above referred to.

Marked progress has been made in the past few years in the treatment of diseases of the eye, the ear, the throat, the skin, etc.; but as many have made their management a special study, and contributed liberally to the profession through the various journals on the different branches, I will not occupy your time farther, but will refer you to their writings.

A PAPER ON ARTIFICIAL INFANT ALIMENTATION.

READ BEFORE THE MEETING OF THE MEDICAL SOCIETY OF PENNSYLVANIA AT NORRISTOWN, PA., MAY 9, 1883.

BY HUGH HAMILTON, M. D.,

Visiting Physician to the Harrisburg, Pa., Hospital, lately Analyst to Pennsylvania State Agricultural Society.

The inattention artificial infant feeding receives, and the valuable foods for sale, suggested a rational basis for such diet.

The explosive cry of the newly-born, the heaving trunk, the flattened nostril, prehensile lip, and pouting lower one, form a complete mechanism for the hydro-pneumatic problem of primitive existence through which the infant must pass.

The remarkable changes in the circulatory apparatus:

INFANT ASSIMILATION AS SHOWN BY PROPORTION OF BLOOD CORPUSCLES. AGED 15 TO 20 DAYS.

Time.	*Corpuscles.* White.	Red.
Before 1st meal	1	150
½ half hour after 1st meal	1	155
3 hours after 1st meal	1	145
½ hour after 2d meal	1	100
3 hours after 2d meal	1	142
½ hour after third meal	1	92
3 hours after 3d meal	1	158

PROPORTION OF BLOOD CORPUSCLES IN INFANT DIET 2½ TO 3 HOURS AFTER MEALS.

Age in Days.		Milk Diet. *Mother's.* Human Red Corpuscles.	*Cow's.* Human Red Corpuscles.
½ to 3	One white corpuscle.	135	122
4 to 7		157	135
8 to 14		165	140
15 to 30		173	145
31 to 60		180	153
61 to 90		185	160
91 to 120		191	172
121 to 150		210	180

The new function of respiration and the assumption of assimilation by the digestive tract are subjects which, contemplated in detail, afford a fertile field for investigation. The processes in the alimentary canal form the main points of our thesis—namely, artificial infant alimentation.

Directing our thought to, first, the development of these functions in infancy; secondly, the progressive natural diet offered for its nourishment; and, thirdly, the artificial aliment which fulfils best the essential conditions of natal life.

The saliva is excreted slowly.

EXCRETION OF INFANT SALIVA.

Age.	*Time.*	*Amt.*
21 days	30 min.	15 grs.
56 days	2 min.	15 grs.

Of an alkaline reaction, its diastasic power is therefore limited.

CONVERSION OF STARCH TO SUGAR BY ACTIVE ADULT SALIVA OF EQUAL AMOUNTS.

Source.	*Time.*
Potatoes	2 to 4 hours.
Peas	1 to 2 "

Source.	*Time.*
Wheat	½ to 1 "
Barley	10 to 15 min.
Oats	5 to 7 "
Rye	3 to 6 "
Corn	2 to 3 "

The stomach juices, but partially excreted, are only those able to break albumen into readily assimilated forms.

The liver is slow to assume its functions, as illustrated by the icterus of early babyhood, and that bile is not excreted quickly is known by the constipation then frequent.

At the age of four or five months, the pancreas begins to secrete *trypsin*. The bowel juices are alkaline if normal. When teething commences, the liver and pancreas are often so swollen as to draw attention to the abdomen. The bile is then rapidly secreted, causing healthful evacuations, to the relief of the now plethoric sensorium.

The colostrum is at once of exceeding utility; its excretory cells irritate the stomach to peristaltic action, compelling the rectum to expel the meconium. See Fig. A.

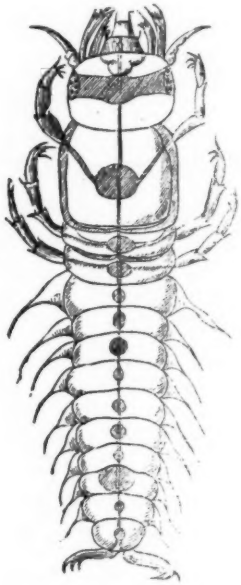
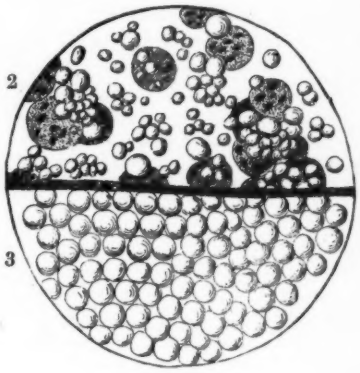


FIG. A.

Ganglionic Nervous System of *Corydalis Cornutus*.—Leidy & Haldeman.

The quantity of fats and sugar in it is immediately absorbed, supplying the necessary hydrocarbon for the rapidly living and growing organism, and its albuminous fluid contains an albuminoid especially formed to assist primary digestion. See Fig. 2.

COLOSTRUM.



MILK.

FIG. 2.

MICROSCOPICAL PLATE AFTER VOGEL.

Human.	*Colostrum.*	*Milk.*
Casein	4	3.43
Fat	7	4.54
Sugar	5	2.53
Ash		.23
H_2O		88.36

Human milk has been analyzed into casein, fatty matters, and sugar.

HUMAN MILK ANALYSES.

From Birth.	Fat.	Casein.	Sugar.	Ash.
1½ days	4.31	4.10	6.05	.53
9 days	4.07	3.02	5.78	.68
16 days	4.05	3.15	5.67	.69
23 days	3.98	3.11	5.80	.68
R. Breast	4.02	3.35	5.78	.60
L.—	2.67	3.29	5.54	.60

(*Mott.*)

Like the product of the cow, the bovine curd is, however, of a much more permanent character; the reason, until recently, was undiscovered.

Meissner's classical researches upon digestive products developed a series of *a*, *b*, and *c* peptones, respectively known as syntonin, *para*-peptone and *dys*-peptone.

In 1875, Schützenberger, by a number of experiments, divided albumen into certain approximates. Albumen, when treated with dilute sulphuric acid, gave a gelatinous precipitate, slightly yellow, of weak acid reaction, insoluble in water, alcohol, or ether; of the empirical formula $C_{24}H_{42}N_6O_{12}+H_2O$, named by him HEMI-PROTEIN.

In the filtrate there was fonnd an amorphous material of a very weak acid reaction, having the formula $C_{24}H_{40}N_6O_{10}$, designated HEMI-ALBUMEN—

the filtrate from this substance vigorously reduced Fehling's solution.

Keuhné, in 1876, presented a scheme upon the digestion of albumen as follows:

SPLITTING UP OF ALBUMEN BY GASTRIC JUICES.

Albumen.

Anti-Albuminose.		Anti-Albuminose.	
Anti-peptone.	Anti-peptone.	Hemi-peptone. Leucin. Tyrosin, etc.	Hemi-peptone. Leucin. Tyrosin, etc. Due to action of Trypsin.

Anti-*Albumid* (the Hemi-protein of Schützenberger) is insoluble in gastric juice, but soluble in a dilute solution of soda, then it is easily digested by trypsin. Anti-*albumat* (the Para-peptone of Meissner) is an abnormal result of digestion due to insufficient pepsin; it is, however soluble in gastric juice, but not absorbable until in alkaline contact with trypsin.

Anti-*albumose*, or syntonin, is unaltered by stomach juices or trypsin, therefore is a true anti-peptone, and readily absorbed upon reaching the alkaline stage of digestion.

Hemi-*albumose* (Schützenberger's *Hemi-albumin*). It is difficultly soluble in cold, easily in hot water, in dilute alkalies, also in pepsin and through trypsin readily changed to Hemi-*peptone*, when it separates into Leucin and Tyrosin, etc. Hence it is observable that albuminous matter is parted by gastric juice into two groups, allowing early and late digestion. The *anti*-group is slowly absorbed, while the *hemi*-group is readily broken into further approximates.

Albumin.

Anti-Group.	Hemi-Group.
Anti-Albuminid (Heminprotin)	Hemi-Albuminose and peptone.
Anti-Albumat. (Para-peptone).	Hemi-pepton.
Anti-Albumose (Syntonin).	
Anti-pepton.	

Dr. T. Schmidt, in his inaugural dissertation, *Moscow*, 1882, thinks the amount of *hemi*-ALBUMOSE in human and cow's milk forms the main difference between them. From his experiments, if five (5) volumes of 2% solution, hemi-albumose, is added to one (1) of neutral cow's milk, rennet extract does not coagulate it for at least twenty-four hours. Should the reaction of the milk be acid, the mixture gives a flocculent precipitate, with no tendency to agglutinate or shrink, the serum remains milky as in human milk, when treated with rennet without hemi-albumose.

THE AMOUNT OF HEMI-ALBUMOSE IN HUMAN AND COW'S MILK AND AN ARTIFICIAL MILK ON THAT BASIS.

Milk Proteids.	Human . . . . . %	Cows . . . . . %	Theory requires %	Artificial . .
Casein;	.6573 49.8	3.1666 87.3	Constant.	87.3
Albumin	.3382 25.7	.2970 8.2	+37.3	45.5
Hemi-albumose . .	.3224 24.5	.1672 4.5	+38.3	42.8

(*T. Schmidt.*)

HEMI-ALBUMOSE has the quality of being soluble in an alkaline liquid at 55° C. (131° F.) charged with carbonic acid gas.

The chemistry of albuminous digestion leads us to see the reason that human milk is so admirably adapted to the little body dependent upon it.

If, from imperfect female development, the mother is unable to nourish her offspring, the acute causes of disease prevent, or its sad results deprive the babe of suitable nutriment; then intelligent medical advice is of vital moment. What to recommend? What to avoid?

Dr. Hiram Corson, in 1870, published a pamphlet in favor of *undiluted* cow's milk for infants.

To physicians not in cities a certain fat percentage in cow's milks may be relied upon. The task of forming infantile diet, is comparatively easy from the recent chemical information obtained.

Concerning the milk from *one* cow, in an exhaustive paper before the American Academy of Arts and Sciences, Prof. S. P. Sharpless, of Boston, says: "A uniform diet for a child will be *much* better secured by mixing the milk of a number of cows than when it is attempted by trying to secure that of a single one. Since, as we see (my friend gave the results of 2,209 analyses of cow's milk, from 10 countries, by 20 different analysts), the milk of any one cow varies *very* considerably."

DIFFERENCES IN COW'S MILK.

Cow's Milk.

Runs.	Fat.	Casein.	Sugar.	Ash.
1st	1.84	3.01	4.49	54.
2d	3.03	4.25	4.80	58.
3d	4.03	3.90	4.50	54.
Teats.	**Fat.**	**Casein.**	**Sugar.**	**Ash.**
R. Forward.	3.32	3.53	4.90	59.
L. "	3.00	3.42	5.00	57.
R. Rear . .	2.73	3.61	4.72	61.
L. " . .	2.13	3.48	4.88	64.

(*Sharpless.*)

A leader in a late London medical journal re-

marks upon the discrepancy of human milk analyses, and how misleading they are when only proportions between casein and albumen are deemed sufficient to account for the unsatisfactory behavior of some animal milks.

RELATION OF CASEIN TO INFANT MORTALITY.

	Human	Asses.	Goat.	Cow.
Casein to 100 parts Albumen	122	155	173	2.37
Living Infants . . .	100%	73%	20%	17%
No. Used		38	42	6
No. Dead		10	34	5

The problem is yet exceedingly questionable, to suggest a suitable diet for infants.

The variation in the product of milch cows is notorious; what must it be in a sensitive animal like the human female?

The mortality in infant institutions is a pointed comment on our progress in this direction, and a matter of vital importance to our national existence.

Dr. A. V. Meigs, of Philadelphia, after a careful survey of the subject, advises condensed milk diluted with six (6) volumes of water, while the proportion of fats is completed by the addition of cream. He states in a foot-note that his cream had but 12 per cent. of fats. Where will he get his fats to add to the condensed milk liquid?

Dr. Keating, in an able lecture, depicts his difficulties in the effort to substitute *gluten*, a vegetable diastase, for the animal diastase, *saliva*. A matter here demands attention, namely, that *vegetable* albumen, gluten, and maltose are not *animal* albumen, saliva, and lactose, though like unto them—because of the relation they sustain to assimilation by an organism.

CHEMICAL ISOMETRISM.

Cellulose.	Cane Sugar.
Starch.	Milk " (lactose.)
Dextrine.	Malt " (maltose).
$C_{12}H_{20}O_{10}$.	$C_{12}H_{22}O_{11}$.

Possibly better illustrated by the disposition of the letters T, A, and R, when being transposed to read TAR, RAT, ART, words of very dissimilar significance.

If nothing but these artificial vegetable foods are procurable, a child may exist until able to take substantial animal diet.

Artificial foods, microscopically, which divided themselves into the following classes:

1st. Those containing MORE *gluten* than ordinary flour:

Franklin Mills Entire Flour.
Hawley's Liebig's Food.
Arlington Wheat Meal.
Mead's Milled Wheat Flour.
Baby Sop.

Those containing *gluten* EQUAL to ordinary flour, which has GLUTEN 3.50%, STARCH 63.64%:

Gluten Flour, N. Y. Health Food Co.
Savory & Moore's Food.
Horlick's.

Those containing LESS *gluten* than flour:

Ridge's Food.
Mellin's Food.
Victor's Baby Food.
Gerber's Food.

A. R. LEEDS' TABLES.

	H_2O.	C., H., and O.					O, H, C, N, S, P, Fe., etc.	
		Fat.	*G. Sugar.*	*C. Sugar.*	*Starch.*	*Gum.*	*Alb'n.*	*Ash.*
Theory	81.	3.	. . . . .	11.	. . . . .	. . .	4.	1.
Farinaceous Foods.								
Hubbell's	7.78	.41	7.56	4.87	67.60	. . .	10.13	1.
Blair's	9.85	1.56	1.75	1.71	64.80	2.94	7.16	undet.
Imperial Granum	5.49	1.01	. . . . .	. . . . .	78.93	.50	10.51	"
Ridge's	9.23	.63	2.40	2.20	77.96	. . .	9.24	"
Victor Baby	7.49	1.62	.62	19.92	63.45	. . .	8.87	.96
Farwell & Rhein	12.67	.84	2.23	1.42	68.36	.51	10.39	1.00
N. Y. Health Food Co. . . .	11.90	. . .	. . . . .	. . . . .	49.53	. . .	23.18	undet.
Milk Foods.								
Gerber	6.78	2.21	6.06	30.50	38.48	. . .	9.56	undet.
Anglo-Swiss	6.54	2.72	23.29	21.40	34.55	. . .	10.26	1.20
Liebig's Foods.								
Savory & Moore	8.34	.40	20.41	9.08	36.36	.44	9.63	
Mellin's	5.00	.15	44.69	3.51	none.	. . .	none.	1.89
Horlick's	3.39	.08	34.99	12.45	"	. . .	6.71	1.28
Hawley's	6.60	.61	40.57	3.44	10.97	. . .	5.38	1.50
Keasbey & Mattison	27.95	none	36.75	7.58	none	. . .	none	.93
Baby Sop	11.48	.62	2.44	2.48	51.95	5.24	7.92	1.59

Gluten Flour.
Anglo-Swiss Flour.
Mother's Milk Substitute.
Those containing NO Gluten:
Keasbey & Mattison's Food.
Imperial Granum.
Crosby's Brain and Nerve Food.
Blanchard's Glutena.
Duke's Glutena.
Blair's Food.
Hubbell's Prepared Wheat.
Redmond's Ceraline.
Farwell's Glutena Flour.
Taylor Bros., Arrowroot mainly.
Potato Starch.
N. Y. Food Co.'s Flours—several brands.

Prof. A. R. Leeds examined these foods chemically. See table on page 543.

Upon these two bases you can judge microscopically and chemically respecting these foods. One of two conclusions forces itself upon our minds—that Liebig's theory of necessary change of starches to sugar is essential to assimilation; or, that the miscellaneous experience of the profession finding successful results, even from these foods, shows there still exists an unknown factor that brings to households sorrow and to the nation loss. We do, however, reach this conclusion: That *the use of mixed healthy cow's milk, rendered alkaline by bi-carbonate of soda* (BAKING SODA, not powder) *with the addition of a tablespoonful or two of good cream to one-half pint of milk, then heated to* 55° *C.* (131° *F.*) *and afterward sweetened by a strong, freshly-prepared syrup of milk sugar* (lactose) *forms the most admirable* ARTIFICIAL INFANT ALIMENT *now known.*

Hospital Reports.

NEW YORK HOSPITAL.

CLINIC OF PROF. WILLIAM H. DRAPER.

Reported by W. H. SEELYE, A. M., M. D.

Purpura Hemorrhagica.

This is the man with pleuro-pneumonia who was before the class on November 3d (see page 402), and was at that time suffering from pretty high fever. Since then the case has not progressed at all favorably, as his present condition and the history shows.

History.—November 10. Since the last record the patient's temperature has at no time fallen below 102°, nor has it risen above 103°. The heart has been regular, and the pulse for the past week has ranged from 80 to 100 per minute. The physical examination shows anteriorly slight expansion of the right lung at the apex, but a want of expansibility on both sides at the base. At the left apex the vesicular murmur is loud and prolonged; over the right apex is heard a blowing sound during inspiration and expiration, and the voice sounds are muffled. Posteriorly over the right side there is dullness on percussion, extending from the spine of the scapula above to the base of the lung below. Ægophony is obtained at the inferior angle of the scapula. Patient was aspirated, and a quantity of turbid serum containing some leucocytes withdrawn. Brandy and quinine were administered.

December 6. Since the last record patient has been doing very well.

December 14. One week ago patient began bleeding at the nose, and epistaxis from the right nostril has continued ever since. In order to stop it, iced lint was put into the nostril; but it was not successful. Then the posterior nares and the anterior nasal passages were plugged; but without producing any beneficent effect, for the blood oozed out along the sides of the plugs, and it showed no tendency to coagulate.

On the third day of the hemorrhage, the right half of the nose became greatly distended and swollen. Ergot was administered to check the bleeding, but without effect. Then gallic acid was tried, and large doses of morphia were given, but to no purpose. He had lost about twenty ounces of blood during the past week. Yesterday it was noticed that his face became purplish in places, and small patches formed upon the cheeks and under the eyes. This morning similar hemorrhagic spots of a purple hue were found scattered over the thighs. His nose and face are so swollen that he cannot open his eyes. The patient now lies in a semi-unconscious condition, and evidently very much enfeebled from exhaustion, and he takes no notice of what is going on around him. His face is of a dark hue, and much disfigured, and is spotted with purple hemorrhagic patches scattered about, but especially under the eyes and on the cheeks. The right side of the nose is much swollen, and from the nostril projects a large plug covered with blood. He breathes through the mouth, and his breath has a very offensive odor. Hemorrhagic spots are to be seen in small streaks and patches just beneath the epidermis upon both thighs.

Gentlemen, you remember this man as a patient with pleuro-pneumonia, whom you saw convalescent in the wards some time ago. Eight days ago he began to bleed from one nostril, and all the efforts to check it which have been made since have been unsuccessful. The bleeding has been confined to the nostril for the most part, so far as we know, until within the last three days, when, as I had expected, he developed cutaneous hemorrhages, the blood collecting just under the epidermis, in some instances producing blood blisters, and in others indelible stains upon the face and limbs, and, I presume, on the back more freely than anywhere else.

The case is one of purpura, and of that variety called purpura hemorrhagica. Purpura is a term often applied to a simple cutaneous hemorrhage, but purpura hemorrhagica is only applied to those cases where the hemorrhage is not only upon the cutaneous integument, but also upon the mucous integument anywhere. It may be from the mu-

cous membrane lining the gastro-intestinal tract, or from that of the bronchial or genito-urinary tract, as from the vagina, uterus or bladder. There is no part of the tegumentary structure which is free from these hemorrhages. You will see cases of purpura hemorrhagica under various conditions, but much more frequently where you have an opportunity to see many cases of scorbutus.

Twenty-five years ago, when I was on duty in the Marine Hospital, sailors used often to come in with scorbutus, and some of these would there develop a purpura hemorrhagica. But this condition may also arise under other circumstances. You may have it during the course of cerebro-spinal diseases, and this, too, in patients who give no venereal history, and who are not of intemperate habits. And it sometimes occurs in connection with splenic leucæmia, and in other dyscrasic conditions, in which there is first a deterioration in the quality of the blood, and then a degeneration of the walls of the blood-vessels, and following this, an escape of blood into the surrounding tissues. This is a very different malady from that milder form of purpura, which is sometimes seen as a generalized eruption upon the skin. This milder variety is often found in persons who are apparently enjoying good health, and especially in those with a gouty or rheumatic habit, in whom, however, there appears to be a good condition of nutrition. But in such cases as this, from some unknown cause, we have a change in the constituents of the blood, and a deterioration in the walls of the blood-vessels, which allows the blood to escape into the surrounding textures. It is not important, however, that we should find these visceral hemorrhages into the stomach, lungs, liver, spleen, or kidneys, or into the pleural cavities, or possibly, in the meninges of the brain, in order to establish the diagnosis. In this condition the ordinary hæmostatics appear to do little or no good. Ergot and gallic acid have been tried here, but these have not acted so as to give relief, and the applications which have been made to the nostrils have also failed.

It has been said that this kind of hemorrhage is more readily arrested by the terebinthine applications. For example, it is said that a hæmoptysis depending upon a hemorrhagic dyscrasia is most satisfactorily treated by preparations of turpentine. I have used these to some extent, but I cannot say that my success with them has justified this statement. It has become common, however, to administer turpentine in cases of hæmoptysis, and it is thought by some to be most efficient where it is dependent upon a hemorrhagic dyscrasia, and not upon any local pulmonary lesion.

It is to be noted that in this patient the temperature has kept up. It went up the day the hemorrhage began, and it has since ranged from 103° to 103.8° and at the present time it is 103°. The fever under these circumstances may be explained as arising from the absorption of the elements of decomposing blood, or possibly hemorrhages into certain of the viscera are there acting as foci of infection, causing thus a septicæmia which is manifested by this continued rise of temperature. I do not see any other reasonable explanation of this high degree of fever.

Medical Societies.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday evening, March 22, 1883. The President, Dr. Tyson, in the chair.

Dr. J. P. Crozer Griffith exhibited a case of

Chondroma of the Skull.

The patient, aged twenty-nine, had been admitted to the Presbyterian Hospital, Philadelphia, June 1st. He was and had been suffering from persistent and very severe frontal headache, and held his head thrown back upon his shoulders to the farthest extent. Examination revealed a tumor the size of a walnut upon the anterior portion of the vault of the skull. This had been recognized by the patient for from one and a half to three and a half months. Just how long was uncertain, as his headaches were very much confused. He had suffered from headache for twelve years. Ophthalmoscopic examination revealed double choked discs.

While in the house the tumor grew with great rapidity and a new growth sprang up beside it. The larger one became soft and tender in spots. The patient became delirious, but coma and paralysis developed only three days before death, nineteen days after admission. The post-mortem examination revealed a large tumor upon the anterior portion of the vault, consisting of a soft red mass, but full of bone spicules; and to the right, and connected with it, a smaller dense hard white growth. Apparently distinct capsules enclosed and separated the two. The periosteum covered both tumors. The entire growth was irregularly oval, four and a half inches long by four to five broad, and with one and a half inches for its greatest thickness. Removal of the calvareum showed that the greater part of the tumor was internal. Here it was divided into three lobules, of which two resembled the larger tumor in structure, while the third was more like the smaller external growth. The dura mater covered the internal projection. At points it was attached to the brain, and bone spicules penetrated into the brain substance. The length of the entire internal growth was four and one half inches, width four inches, and the greatest depression upon the brain, two inches.

The tables of the skull within the tumor were destroyed, and the bone around the edge eroded for some distance. The brain structure did not appear to be altered. Microscopical examination showed it to be a reticular chondroma with a large amount of imperfectly fibrillated, and rather translucent connective tissue forming small meshes in which were cells; seven embryonic, but very many cartilage cells. The bone spicules were evidently newly formed, and the older tumor had evidently undergone an ossifying metamorphosis, and then had become vascularized, forming a soft mass in which the spicules were imbedded. Clinically the case was of interest from the existence of so great a depression of the brain, with so few signs of disturbance of its functions.

Dr. Wetherell asked what was the condition of the lymphatic system; were the glands enlarged?

Dr. Griffith replied that only the post-cervical were affected.

Dr. Formad had examined the sections about a year ago; it is true, as he says, the predominant cells are those which resemble those of fibro-cartilage. There were, however, many young cells, cells like giant-cells, but the majority of the sections had more the appearance of fibro-cartilage. The conclusion to which Drs. Tyson and Formad came at the time was that it was one of the varieties of chondroma. As the specimen appears now, it is too soft for chondroma, but seems rather to be a chondro-sarcoma. To this would point the rapid growth and age of the patient. It is certainly not gummatous.

Case of Metastatic Pneumonia following Pistol shot Wound of Temporal Bone.

Presented by Dr. H. M. Fisher.

The patient, H. G., æt. 26, from whom the specimens I present to-night were taken, was admitted to Dr. Levis's wards at the Pennsylvia Hospital, October 31, 1882, suffering from a pistol shot wound of the right ear. The following clinical notes of the case were presented by Dr. J. H. Wills, resident surgeon to the Hospital:

Examination of the wound with the Nélaton probe showed that the ball had passed through the posterior wall of the external auditory canal, and was firmly embedded in bone about one inch from its point of entrance.

The seat of the ball was distinctly located by the marking of the lead on the porcelain of the Nélaton probe.

A prolonged effort to extract the ball was deemed unadvisable, on account of its close proximity to the lateral sinus. On account of the inflammatory œdema of the tissues around the wound, poultices were applied. Ptosis of the right lid, and slight depression of the right corner of the mouth, were noticed.

The patient remained in the hospital four weeks, during which time his general health appeared fairly good. He was permitted to go out on a pass, returned the following day with well-marked pleuro-pneumonia, and died ten days later.

The autopsy showed that the ball had penetrated the tympanic cavity and passed into the jugular fossa, where it was found embedded. There was marked periostitis in the neighborhood of the wound, but no inflammation of the walls of the lateral sinus, nor of the internal jugular vein, was noticed.

I am inclined to believe that the infarcts found in the lungs and pleura owed their origin to numerous small thrombi that had been formed in the diploë of the petrous portion of the temporal bone; the venules of the diploë having become plugged as a result of the periosteal inflammation. These thrombi becoming loosened in consequence of increased blood-pressure, were washed out into some one of the adjacent sinuses, and so into the pulmonary venous circulation. The case is, I think, an interesting one, as showing the danger attendant upon such injuries to the temporal bone, apart from any incidental injury to the brain or its membranes.

Sections of the heart, liver, speen, and kidneys showed marked amyloid infiltration of these organs. Whether such marked changes could be induced in all these organs in the short period that elapsed from the receipt of the injury to the date of the patient's death, is a question I would leave to other members of the Society to decide. At any rate, so far as I could ascertain, no previous history of suppuration was elicited from the patient during the time of his sojourn in the hospital.

Appended are the notes of the microscopical examination of the different organs:

Lungs.—Vessels everywhere greatly dilated and present numerous infarctions; the alveolar capillaries are also greatly distended, and their endothelium is swollen. Inter-alveolar spaces packed with lymphoid cells and embryonic connective tissue cells. The alveoli contain accumulations of epithelioid highly pigmented cells. These cells are generally found associated with exudation corpuscles in a delicate reticulum. These catarrhal intra-alveolar accumulations show in places a tendency to become organized.

The *pleura* is greatly thickened, its vessels dilated and infarcted.

Heart.—Muscular filses show commencing fatty degeneration, and there is marked amyloid infiltration of the walls of its smaller nutrient vessels.

Liver.—Cell nuclei alone take carmine staining. Islands of liver-cells found in a translucent nearly homogeneous basement tissue. Evident amyloid infiltration of the walls of the finer hepatic arteries and biliary ducts.

Kidney.—The Malpighian corpuscles show stiffened capillary loops and little shrinkage from the action of the alcohol. The lumina of the arterioles are patulous.

Homogeneous translucent spaces are seen between the smooth muscular fibres of these vessels.

Spleen.—The lymphoid corpuscles of the pulp appeared to me to present an unduly homogeneous translucent appearance. The smaller vessels show distinct amyloid infiltration of their walls. The Malpighian bodies also show a notable infiltration, having in some cases been converted into amorphous masses, which are semi-transparent, and show interspersed among them a few connective tissue nuclei.

Case of Erysipelas Neonatorum.

Presented by Dr. H. M. Fisher.

Was called on March 3d, to see a colored infant one week old.

The child was said to have presented no sign of indisposition until the day previous to my visit, when it suddenly became much agitated, refused to nurse, and was found to have difficulty in micturition. The tissues of the scrotum and penis were found to be swollen, and in a few hours a faint erysipelatous blush was found pervading their surface.

When first seen the child was apparently moribund. I could detect no radial pulse, its lips were blue, its extremities cold, and it was in a semi-comatose condition. In the hasty examination I made in the small, badly-lighted attic in which I found the child, I observed but did not attach due importance to the erysipeletous blush I found extending from the scrotum to the lower part of the abdomen. From the history furnished me, and from the œdematous infiltration of the legs, thighs and eyelids, as well as of the scrotum and penis, I was inclined to look upon the case as

one of primary acute nephritis, with secondary erysipelatous involvement of the œdematous tissues.

With this view of the case, I ordered that the child should at once be placed in a hot bath, and after the bath, applied flannels wrung out in hot infusion of digitalis to the patient's loins, and administered a small hypodermic of pilocarpine. Marked temporary improvement followed this treatment, the child emerged for a short time from its semi-comatose condition, cried lustily, and urinated and sweated freely, and marked reduction of the œdema was also noticed.

The improvement was, however, of short duration; the child soon relapsed into its former apathetic condition, and death occurred at 11 p. m.

The autopsy, made by Dr. McIlvaine, resident surgeon, eighteen hours after death, revealed rigor mortis pretty well established.

Œdema of the tissues of the lower extremities, scrotum, and penis, was noticed. There was a livid discoloration of the skin of the anterior inner aspects of both thighs, and slight sloughing of the skin of the lower part of the scrotum. The bladder contained about half an ounce of light yellow opaque urine. The urine obtained by tapping the bladder post-mortem showed, on examination, an apparent volume of albumen equal to about one eighth of the column of urine in the test tube. Microscopically, blood and pus corpuscles were found in abundance, and a few highly granular tube casts.

The kidneys were somewhat congested and lobulated, but their capsule was not adherent, and they did not, at least to the naked eye, present any other evidence of disease.

The liver weighed six ounces, and was highly congested.

The spleen weighed one and a half ounces, and was likewise congested and its surface mottled.

The lungs were pretty evenly congested throughout, but were everywhere crepitant, and floated on water.

The heart weighed two ounces, and presented on the whole a healthy appearance, but its posterior mitral cusp appeared somewhat thickened.

The post-mortem appearances leave, I think, but little doubt that the disease was peripheral in its origin, or, in other words, that the erysipelas was the starting-point of it. Probably some comparatively trifling cause, such as a slight abrasion of the scrotum, sufficed under the very unfavorable sanitary conditions in which the little patient was placed, to light up the train of the disease, with all its complications.

The progress of the disease seems in this particular case to have been unusually rapid. If the mother's statements can be trusted, only thirty-six hours elapsed from its first onset until the fatal termination.

EDITORIAL DEPARTMENT.

PERISCOPE.

The Spleen in Syphilis.

The *London Medical Record*, February 15, 1883, tells us that Dr. Haslund, of Copenhagen, begins a paper on this subject (*Hosp. Tidende*, Nos. 2 and 3, 1882; and *Viertelj. für Derm. und Syph.*, Heft 2, 1882,) with some remarks on the difficulty of determining the changes of the spleen in syphilis; firstly, because it is an organ which during life is only imperfectly accessible to physical examination; secondly, because its function is but little known; and, thirdly, because syphilis, when it does cause death, is generally so mixed up with other pathological conditions, that it becomes a matter of difficulty in any given case to decide whether the change is really due to the syphilitic dyscrasia or to some accidental complication. At the bedside a swollen spleen can sometimes be made out, but, in the author's opinion, only in the early stage of syphilis, and in cases where the prodromata are so severe that they resemble the symptoms of typhoid fever. In such cases, Dr. Haslund has twice made out an increased area of splenic dulness, but this speedily disappeared as soon as the febrile symptoms had departed. Thus the author does not accept the views of Jullien, Bäumler, Weil, and Wewer, who think splenic enlargement a rather common occurrence. It is more frequently the case that a spleen tumor in the early stages of syphilis turns out after death to be due to amyloid degeneration. This change, however, is not due to the syphilis itself.

In order to form an independent opinion on syphilitic affections of the spleen, Dr. Haslund examined the *post mortem* records of the Communal Hospital of Copenhagen for a period of fifteen years (1866–80). Among these he found 154 cases of children who died with inherited syphilis. In ninety-six the spleen was healthy. In the remaining fifty-eight cases the spleen was diseased, the change being due to hyperplasia in fifty-five; in fourteen of these the consistence of the tissue was normal, in thirty-one the organ was harder, and in ten softer than natural. Further, one case of infarct was noted, one of fibrinous deposit on the serous surface, and one in which where were thickening of the capsule adhesions. In none of these three is there mention of alteration in size or consistence. Among the fifty-five cases of hyperplasia, fibrinous deposits on the surface of the spleen were noticed nineteen times, scattered patches of thickening of the capsule four times, and adhesions to neighboring parts once. Finally, in three cases there were miliary tubercles in the spleen, associated with tuberculosis of other organs. As regards the significance of these changes,

the author is of opinion that the simple hyperplasia must be considered to be in direct relation with the general disturbance of nutrition caused by syphilis; but whether it be a cause or a consequence of the cachexia must remain doubtful until the functions of the spleen are better understood. The other changes noted are considered to be not directly due to syphilis. Among the 154 cases there was not one of amyloid degeneration, and in only one were gummata mentioned in the report.

The author also examined the *post mortem* records of forty-four adults who died during the course syphilis in the same department of the hospital during the same series of years. In three of these there was amyloid degeneration of the spleen. This change, Dr. Haslund thinks, is always dependent on chronic suppuration either in the superficial tissues, in the bones, or in the internal organs. Of the three cases just mentioned, there was old necrosis of the scapula and clavicle in one, ulcerated gummata of the skin in another, and suppurative pylonephritis with calculi in the pelvis of the kidney and left ureter in the third. Among the forty-four cases there was no instance of gumma. In ten the spleen was healthy; in twenty-seven there was more or less hyperplasia, the organ being softer than natural in eleven, and firmer than natural in sixteen; scattered thickenings of the capsule were noted in two cases, and adhesions to the surrounding parts in four cases.

Prolonged Antiseptic Baths.

From the *Med. Times and Gaz.*, March 31, 1883, we learn that in a recent *thése* by Dr. Jannin he gives an account of the antiseptic baths first introduced for the treatment of surgical affections by Prof. Verneuil in 1870. Their application would be difficult for the lower extremities, but they are easily employed for any wound of the hand, arm, or elbow. The antiseptic solution, consisting of from 1 to 2 per cent. of carbolic acid, is employed tepid for about two hours at a time, and repeated two or three times a day—the parts being covered in the intervals with compresses wetted with the water of the bath. The writer concludes from his cases that the bath often renders immense service, and that in circumstances under which unfavorable prognosis has usually been drawn. That its employment in most cases suffices to prevent traumatic fever, and to cause the disappearance of painful symptoms. That when symptoms of septicæmia are present, we can often arrest them, and cure the patient, and preserve the functions of the limb. In cases of bites from horses, and in contused wounds accompanied by much detachment and crushing, if the parts can be easily submerged, the prognosis, which is generally so bad, will be greatly improved, the patient in a few days becoming sheltered from accidents which so often prove fatal. In gunshot wounds, also, Prof. Verneuil has obtained several proofs of the great utility of the baths.

Injurious Effects on Health of Aniline Dyes.

A subscriber writes to the *Lancet*, March 3, 1883, as follows, giving some startling and valuable information:

"Speaking to a German gentleman recently, I was informed that an agitation was on foot in Germany having for its object the suppression or limitation of the use of aniline dyes in the manufacture of articles of clothing. These dyes have been found to be highly prejudicial and even dangerous in some recent remarkable instances, and strong feeling in opposition to their use has been a set up in certain quarters, which is likely to take the form of what we should call Parliamentary action.

"I should like to invite your powerful influence to raise a discussion on the subject in this country, where the use of these dyes is becoming so universal. My impression is, although I advance it with all humility, that a great deal of impaired health and unaccountable ailment may be traced to the use of clothing, especially underclothing, into the manufacture of which aniline dyes and their ingredients largely enter. Much was said some time ago about arsenical wall-papers and their prejudicial consequences; and seeing that aniline dyes are "fixed" with the same fatal poison, how much more serious must be the effect of a garment upon the wearer whose body is all day long in contact with its subtle and deleterious influence."

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——An interesting article on otitis media purulenta, by Dr. Dudley S. Reynolds, of Louisville, Ky., has appeared in the form of a neat reprint.

——The details of two typical cases of aphasia are given by Dr. Philip Zenner, of Cincinnati, in recent reprint from the *Lancet*, of that city.

BOOK NOTICES.

Lectures on Orthopedic Surgery and Diseases of the Joints. By Lewis A. Sayre, M. D., etc. Second edition, New York, D. Appleton & Co., 1 vol., 8vo. cloth, pp. 569.

This excellent treatise appears in this edition almost entirely rewritten and greatly enlarged. The illustrations are extended to a total of 324, one of them colored, facing the title, most of the others photo-electrotypes. Various new and improved methods of treatment are described, especially on the subjects of spondylitis and lateral curvature.

There is no higher authority on deformities and chronic diseases of joints than Dr. Sayre among living surgeons. His words contain the results of almost unequalled observations, and we doubt not this treatise will be received as the most complete expression of our knowledge of this branch of science for a long time to come.

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The price of subscription remains the same, $2.50 per year. But as a special inducement to subscribers to the REPORTER to take the COMPENDIUM also, we offer the two journals at the very low price of

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ABDOMINAL PULSATION.

Patients, particularly women, somewhat advanced in years, seemingly in good health, will frequently complain of an annoying beating, throbbing or pulsating in the abdomen.

This condition has sometimes given rise to a suspicion of aneurism of the aorta, but careful examination has failed to substantiate the suspicion.

Dr. Alfred Wiltshire has given considerable attention to this annoying symptom, and gives some valuable information on the subject in the *Medical Press*, April 11, 1883.

As a rule, the chief complaint is of an incessant beating in the abdomen, which becomes troublesome because of its persistence. Some patients complain that the beating shakes them so that they cannot sleep; others become alarmed and restless at the unwonted commotion in their bellies.

When asked to indicate the seat of their trouble, they usually point to a spot in the centre of the abdomen, a little above the umbilicus, sometimes higher, rarely lower.

When we have decided that aneurism does not exist, we must look carefully to the condition of the vascular system, since incompetence of the aortic valves permits regurgitation of blood backwards into the heart; the arterial system gets an impulse, often of exaggerated character, from ventricular hypertrophy, which fails so quickly as to produce a sense of back-thrust from the collapsing of the unsustained current, the vessels being inadequately filled. This condition may unaided excite the worst form of abdominal pulsation, but it is intensified by atheroma and poor blood. A kind of hammer-pulse is produced, and in thin people, whose abdomens are shallow, the violent beating causes distress.

A combination of aortic valvular incompetence, with the secondary cardiac mischief sooner or later ensuing (hypertrophy and dilatation), rigidity of the walls of the vessels, and impoverishment of blood, may produce the gravest form of morbid abdominal pulsation. Inquiry should therefore be made into the integrity of these parts. True

aneurisms are rare in women; and even the "fusiform dilatation" so often assumed to exist is rarely found *post-mortem*. Degenerative changes, however, may be observed.

The treatment must depend, of course, upon the cause, but clinical experience justifies the broad statement that in the majority of ordinary cases a vascular sedative, such as potassium iodide, is most efficacious. This applies equally to neurosal as well as aneurismal cases. But no case should be treated empirically.

Dyspeptic symptoms should never be neglected, for a distended stomach may intensify the trouble. Bismuth, charcoal, and soda are therefore useful. Aperients are of considerable importance, but they should be *laxatives* rather than purges, *e. g.*, decoction of aloes, or rhubarb, or magnesia, rather than salts. An excellent combination for many cases is ℞ Potassii iodidi, gr. v. or x. in dec. aloes co. ℥j. bis die. Belladonna often forms a valuable addition to internal treatment; while a full-sized belladonna plaster over the seat of beating helps to soothe and calm the patient. Digitalis proves useful in certain cases.

In vascular disturbance due to renal inadequacy the kidneys demand attention, and the adjuncts of aperients and sudorifics should not be forgotten. Agents that influence arterial tension may here prove serviceable, such as amyl-nitrite, nitro-glycerine, bromides, etc.

But the chief agent in relieving abdominal pulsation is iodide of potassium. Its great value in arterial disorders, particularly aneurism, has been ably shown by Dr. Balfour; and my experience of its action in most cases of uncomplicated abdominal pulsation warrants the holding of a high opinion of its merits. The dose should not be less than five grains to begin with, and double this, or more, may occasionally be requisite. It is well to combine with it a little carbonate of ammonia, or potash if the urine be lithatic. It goes well with decoction of aloes when the latter is indicated. Should coryza be complained of, small doses of tincture of opium may be added when not otherwise contra-indicated.

Of the bromides, those of sodium, lithium, and ammonium are somewhat less depressing than that of potassium, but it is not often that large doses are called for.

Digitalis may be useful in cases of cardiac incompetence, and when symptoms of renal disorder are present.

FILARIAL DISEASE.

Dr. Manson has recently made some interesting researches in Filarial disease, which he contributes to the *China Imperial Customs Gazette*.

The statement that Filariæ are found in great numbers in the blood of an infected individual during the night, but are absent during the day, has been now substantiated by numerous observers.

On puncturing a gland in the groin, in a case of lymphatic œdema of the legs, Dr. Manson found in the lymph thus obtained not only the usual embryo *filaria sanguinis hominis*, as seen in the lymph and blood, but ova of the parasite containing active and perfect embryos. Since the parent filaria is not oviparous, how was the presence of the ova in this case to be accounted for? It was long before he succeeded in finding a similar case. But at last he was able to repeat the observation in a case of lymph-scrotum. He pricked a vesicle, and found filariæ in the fluid. The following day, when the lymph which had been drawn the previous day was again examined, filariæ were again to be seen. The feeble coagulum was now broken up by stirring. It rapidly disappeared, the small quantity of red deposit and some white cloudy flocculi subsiding. In this sediment were many embryos, and in nearly every slide ova with active embryos struggling vigorously to stretch through the chorional envelopes.

Here, then, are two cases in which the ova of the parasite are found in the lymphatics; and, as Dr. Manson remarks, the parent filaria, like other animals, is liable to miscarry. This accident, he states, is fraught with danger, and is in fact the cause of the elephantoid diseases, and the key to their intimate pathology. Whilst the outstretched embryo is only about $\frac{1}{100}$ of an inch

in diameter, the ovum measures $\frac{1}{750}$th$\times\frac{1}{500}$th, and is much too large to pass the glands. The embryo rolled up in its envelope cannot aid itself; it becomes, in fact, an embolus. The gland or glands directly connected with the lymphatic in which the aborting female is lodged, are thoroughly obstructed. An anastomosis for a time will aid the passage of lymph, but the anastomosing vessels will carry the embolic ova as well as the lymph. The corresponding glands will then in their turn be invaded, and so on, until the entire lymphatic system, connected directly or indirectly with the vessel in which the parent worm is lodged, becomes obstructed. Dr. Manson has examined lymph from the scrotum, the glands, and from the urine, in two hundred cases; yet, in this limited number of observations, evidence of premature birth of ova was obtained twice. Therefore, the accident cannot be of very rare occurrence; although, to have examined the lymph at the proper time, and in a suitable case, must be regarded as a fortunate circumstance not often to be encountered.

The novelty of the theory, and the apparent strangeness of the facts, says the *British Medical Journal*, naturally suggest a certain degree of caution before the explanation can be regarded as definitely established. But it must be remembered that the metamorphosis of the filaria in the mosquito, the phenomenon of filarial periodicity, and other discoveries made by Dr. Manson in connection with this subject, have all now been confirmed by many independent observers; and we can have little doubt that this last, the explanation of the causes of elephantoid disease by plugging of lymphatics by abortive ova, will also in time receive similar confirmation.

Notes and Comments.

Hot Water Retrojection in Gonorrhœa.

This method of treatment is highly recommended by Dr. H. Holbrook Curtis in the *Med. Record*, April 21, 1883. An ordinary wooden arm-chair is half-mooned in the front of the seat to admit a tall cuspidor. A pulley is rigged on the ceiling by means of which a tin pail, with a lamp beneath, is elevated. A rubber tube, provided with a stop-cock and connection leads from the pail, and at any time may be fitted to a No. 8 English flexible catheter. When the water reaches a temperature of say 120°, the catheter is vaselined and introduced to within an inch of the prostate, connected with the tubing, and the pail elevated to such a height that the flow is brisk. The lamp under the pail will keep the temperature slowly increasing. When the water becomes uncomfortably hot, the lamp may be extinguished. After some time a syringeful of the following injection is thrown in, and the catheter withdrawn:

℞. Acidi tannici,
Iodoformi, āā. ℈ij.
Glycerinæ, ℥j.
Aquæ, ℥iij.

This should be repeated twice daily. Internally he uses compressed tablets of five grains of bicarbonate of soda, ten daily. He has repeatedly passed as much as ten quarts of water from behind forwards in this way. From a careful study of more than forty cases, he claims that this treatment will shorten the duration of the disease by at least two weeks, that there is absence of chordee and pain in urinating, and that stricture is improbable.

Femoral Hernia.—Rupture of Coverings.

Dr. Bernard Pitts records in the *Lancet*, April 7, 1883, the case of a woman aged 46, who had had a right femoral hernia for twenty years. She had been once operated upon. One evening upon sneezing, the skin over the tumor, near to, but not in the line of the cicatrix, gave way, and a foot of intestine escaped. She was brought to the hospital three hours later on a cold, frosty night. The exposed intestine was congested, dirty, bruised and cold. Taxis failing, the wound in the skin was enlarged, the crural ring was nicked, and by manipulation the bowel was returned. The thickened sac was dissected out and removed, drainage for peritoneal cavity provided, and the edge of the sac brought together by very stout catgut, the edges of the wound by silk sutures, and carbolic gauze used as a dressing. The patient did well.

Digital Divulsion of the Pylorus.

This new operation, which seems to promise much, has been performed four times, twice successfully, and once so recently that no conclusion can be formed, by Prof. Pietro Loreta, of Bologna, Italy. Dr. Robert P. Harris gives a report of the operation, as received from Loreta, in the *Medical News*, April 21, 1883. It is recommended in

stenosis of the pylorus as a result of chronic gastric ulcer, but it is not supposed to be of any use when the stenosis is the result of carcinoma. The operation is performed as follows: When the stomach was exposed an incision was made into it, between and at equal distances from its two curvatures, commencing $1\frac{1}{4}$ inches from the pylorus and extending $2\frac{3}{8}$ inches in length. By careful rotation, the index finger of one hand was inserted through the aortic valve, to be followed by the other, when, back to back, the stricture was widely stretched without laceration. The serous surfaces of the stomach wound are brought into apposition by the continuous suture of Gely, which throws up a long ridge on the inside of the stomach; any water pressure shuts the lips of this ridge tighter together, and no gastric juice or liquid food can escape into the peritoneal cavity.

Did Syphilis Exist in America before the Discovery by Columbus?

In refutation of the affirmative, which has been asserted by some, Dr. William F. Whitney (*Boston Med. and Surg. Jour.*, April 19, 1883), concludes that the evidence presented thus far does not as yet clearly prove the existence of syphilis in this country previous to the landing of the Spaniards. The conclusive proof is still to be furnished by an extensively and symmetrically diseased skeleton, or by a skull presenting a typical case of caries sicca, as described by Virchow, in his Archives, vol. xv., p. 243. The exostosis noted on the bones of the legs of skeletons found in Indian burying-mounds and preserved in museums, might have been readily caused by violence and many other agencies than syphilis.

The Pathology of Diabetic Coma.

Dr. Stephen Mackenzie read a paper on this subject at the last meeting of the British Medical Association (*Brit. Med. Jour.*, April 7, 1883), in which he discusses the various ideas that have been advanced concerning the nature of the causative agent of diabetic coma, and concludes as follows: That no one of these theories is applicable to all cases of the coma of diabetes, though each explanation may fit particular cases. Though the evidence in favor of acetonæmia is at present quite inconclusive, yet, intoxication by some such poison, with a special affinity for the sympathetic system, developing in the blood or tissues, seems to him the most likely direction in which we will have to search for the cause of diabetic coma.

A Simple Instrument for removing Foreign Bodies from the Ear.

Dr. Louis B. Couch, of Nyack, N. Y., describes the following ingenious device in the *Med. Record*, April 21, 1883. He drills small holes into either end of a piece of eight-sided brass wire. Into one he solders a small twist drill, $\frac{1}{32}$ of an inch in diameter, and into the other a sharply cut screw $\frac{1}{25}$ of an inch in diameter. A hole is drilled into the foreign body, the drill is removed, the screw is inserted, and the article *must* come.

Correspondence.

Eds. Med. and Surg. Reporter:—

In your issue of April 14th, page 417, is an article from Dr. I. H. McClellan, of Pittsburgh, commenting upon Dr. A. A. Smith of New York. Dr. McC. writes like a so-called homœopath. I think, according to the tenets of Hahnemann, that he does not know the principles of *his dogma*. I don't know what his practice is.

The first principle of Hahnemann is that the human family is affected with psora, which you and I know we have not.

The second, that like produces like. Who ever heard of tincture of aconite producing fever, or belladonna scarlet fever? There is a rash sometimes in the last, but that is not the essential of scarlet fever; etc., etc.

Third—comminution and trituration and dilution increases potency. There is no need to dilate on this, but Dr. McC. seems to think he has Dr. Smith on the hip because he uses *small doses*. Why! Dr. McC. ought to be appalled at the large doses of Dr. Smith. According to the third principle of homeopathy, I look upon him as anything but a beaming disciple. If we use small doses we use *appreciable doses, not* infinitesimal ones, according to the homeopathic manner—when the thirtieth dilution is considered awfully powerful, to say nothing of the gigantic proportions they obtain from the mere whiff over the mouth of an empty bottle which has held one of their potentized articles. X. Y. Z.

(Our correspondent, a distinguished physician, for satisfactory reasons does not desire his name made public.—Eds. Reporter.)

Pyrogallic Acid in Eczema.

Eds. Med. and Surg. Reporter:—

In the April number of the *Compendium*, Dr. Jarisch is quoted as having seen "eczema marginatum cured by applying a 5 or 10 per cent. ointment of pyrogallic acid." For several years I have used ℞. pyrogallic acid and raw linseed oil, āā, in nearly all cases of this kind, and have seldom had occasion to change the medication or renew the prescription for the case, provided proper constitutional treatment was carried out as directed. F. R. Millard, M. D.

San Diego, Cal. April 20, 1883.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

(*Continued from page* 535.)

THURSDAY AFTERNOON.

At the afternoon session the Committee on Nominations reported the following for the ensuing year:

For President, Henry H. Smith, of Philadelphia.

For Vice Presidents, Ellis Phillips, of New Haven; H. B. Vanvalza, of Clearfield; J. W. Kerr, of York; S. Schultz, Danville.

Permanent Secretary, Wm. B. Atkinson, of Philadelphia.

Recording Secretary, Morris S. French, of Philadelphia.

Corresponding Secretary, John G. Lee, of Philadelphia.

Treasurer, Benj. Lee, of Philadelphia.

The Medical Society of Pennsylvania to meet in Philadelphia.

On motion, this report was received and adopted, and the Committee on State Board of Health was continued.

After Dr. Moody's address in Obstetrics (see page 513).

The address on Hygiene was read by Dr. Henry Leffmann, of Philadelphia. It touched briefly upon the earlier notions of the causation of disease, and made passing allusion to the present popularity of the germ theory. The subject of disinfectants was then considered, the reader of the address expressing himself as in general opposed to the various disinfecting and germicide preparations now so extensively advertised. One in particular was mentioned, which consisted of nothing but charcoal and sulphur, and was sold at an exorbitant rate as an "ozone powder." The great importance of physicians endeavoring both by example and teaching, to eradicate the prevailing errors in regard to the effects of ordinary exposure, was dwelt upon at length, and accounts given by eminent writers on hygiene, etc., were cited to show that conditions of exposure which, according to common opinion, should have proved most injurious, were actually found to be beneficial. The lecturer took the ground that more harm was done by fear of exposure to "drafts" and to "night" air, than by actual exposure to these influences.

Dr. Samuel Ayres, of Pittsburgh, for several years first assistant physician to the hospital for the insane at Dixmont, Pa., read the next paper, entitled

OUR ASYLUMS AND OUR INSANE.

The more general agitation in our country of late years, of matters relating to the care of the insane and the management of asylums, has produced good results. It has led to examination into the methods of these institutions, and their manner of treatment, and to improvement in their system, through recommendations and enlightened legislation.

The New York Neurological Society took the initiative in this more recent alienistic movement, followed by the National Association for the Protection of the Insane and the Prevention of Insanity—the growth of which body has been remarkable, and its influence in promoting the study of insanity and ameliorating the condition of the insane, widely felt.

The writer believes the lunacy problem is not yet fully solved, that there is need for improvement in many branches of the subject, and that fair and intelligent discussion of its different phases will admit more light and lead to needed reforms.

Reference is made to the increasing dissatisfaction with the management of asylums, and to the distrust in their efficiency as places of cure for the insane, and the admission is made that there is much ground for this want of confidence, owing to the peculiar administration of their affairs and the defects in their system.

Those defects relate to

1. Superintendents.

Though asylums may be palatially built, perfect in all their appointments, vigilantly inspected, with faithful boards of managers, yet if the superintendents be not humane and scientific physicians who give their *entire time* to the immediate *medical* interests of their patients, the above will amount to little, the percentage of cures will be reduced, and the chief end for which these institutions are erected—viz., the cure of the curable and the best care of the incurable—will be in a great measure defeated.

The chief medical officer of an asylum cannot be at the same time purveyor, farmer, florist, paymaster, clerk, steward, financier, lobbyist, etc., etc., and practicing alienist. It is utterly impossible, and yet it is daily attempted with lamentable failure.

It would often appear that the growth of cabbage and currants interests this officer more than morbid growths in the encephalon; that the location of a turnip or a potato patch interests him more than the localization of cerebral lesions; that he takes more pleasure in making his asylum a grand insane boarding-house, than a hospital for the study, treatment, and cure of mental diseases.

By thus endeavoring to perform so many duties, he becomes involved in endless details, his attention is diverted from the patients, and he finally loses, to a great extent, medical interest in them.

The remedy is simple. Let the physician-in-chief be a man of high medical attainments, qualified from special preparation in the treatment of insanity. Let him devote himself exclusively to the care and treatment of his patients, and have nothing to do with the farm, garden, and household affairs. These matters should be entrusted to proper officers, who shall report to executive boards.

2. Assistant Physicians.

When chairs upon nervous and mental diseases are established in our medical colleges, these officers will be somewhat prepared to enter intelligently upon their duties. In the meantime, they should receive from superintendents all possible instruction in the nature and treatment of the cases under charge. It occasionally happens that superintendents are not competent to scientifically instruct their assistants—in which event, if these also be indifferent physicians, we cry, Good Lord, deliver the patients!

The physician-in-chief, accompanied by his medical assistants, should visit the male and female departments on alternate days, and thus see all the inmates every two days, and direct their treatment.

There should be increased medical service in asylums, at least one assistant physician to one hundred patients; and where many recent and curable cases are received, this ratio should be much greater.

3. Consulting Medical Staffs.

Every asylum should have such a staff, consisting of five able physicians—two experienced in nervous and mental diseases, one a surgeon, one a general practitioner, and one agynecologist. And such a board should be *real*, and not merely nominal.

The alienists should visit the hospitals at least once a week, examine all recent cases, and consult fully upon their diagnosis and treatment with the resident staff. The other members need not pay regular visits, but be called in whenever cases are presented involving questions in their respective branches.

4. Asylum Therapeutics.

A routine prevails both in prescribing and dispensing medicines which would surprise the active general practitioner. The administration of appropriate drugs in certain forms and stages of insanity, is attended by effects as pronouuced as in any other disease. Pathological processes let alone or carelessly attacked, generally leave their victims hopelessly insane.

The subject does not receive nearly the attention its importance demands.

5. Pathological Work.

Very little of it is attempted. It is a matter of profound regret that the vast quantity of valuable material for this study furnished in these institutions, is lost to science.

There is no reason why the work should not be undertaken even in a small way in every asylum. Its neglect results from the system in vogue, and the inexperience of superintendents in pathological investigation.

6. Gynecological Treatment.

It is often asked why this treatment is not conducted in all asylums, and very unsatisfactory answers are given to the question—such as do not become earnest and conscientious physicians.

Cases of insanity in women caused by disease of the reproductive organs are constantly to be found at asylums. And yet the subject receives little or no attention. Such neglect is culpable, well nigh criminal in superintendents. There are some obstacles, it is true, to this treatment, but they can be surmounted if it is resolved they must be.

7. Employment of the Insane

Is next dwelt upon, and the evils of idleness contrasted with the advantages of suitable occupation.

The matter is fortunately engaging the attention of our asylum alienists, and in a few of the institutions from 50 to 85 per cent. of the inmates are employed in one way or another.

8. Overcrowding

Is often carried to an alarming extent, as many as five patients being packed for the night in a room 8x13, poorly ventilated. This evil increases the suffering, sickness, and death-rate of these unhappy beings, and prevents the recovery of many otherwise curable.

It should not be permitted by managers under any circumstances, notwithstanding the demand for more asylum accommodations.

9. Unjust Commitments.

Much has been said of late in the secular press about the incarceration of sane persons in asylums by interested relatives. But these rumors, when thoroughly investigated, are usually found to be emanations from the brains of unrestored exinmates. However, to prevent even its rare occurrence, the laws should be very stringent on this point, and the severest punishment visited on those who would conspire to this end. Moreover, asylum physicians should be required to give their opinion as to the sanity or insanity of all patients within one week after admission, and procure the prompt release of any one improperly held.

10. Prolonged Detention of the Cured.

From the failure of superintendents to give their undivided attention to the inmates, it occasionally happens that those restored are detained unnecessarily long; and that others, through the solicitations of friends, are discharged before they ought to be.

11. Restraint.

The subject of mechanical restraint in the care of the insane has been freely discussed. The dungeons, shackles, and chains of the past have given place, in the march of civilization, to the asylums, cribs, and straight-jackets of the present; while these severe forms of restraint are fast yielding to the milder methods of management, suggested by science and humanity. The writer is not sure but in very rare cases, mild coercion might be employed with advantage; but since it is liable to be so badly abused, he advocates the entire abolition, as has been done in so many of the foreign asylums and in some of our own.

12. Cruelties.

The reports of cruelty inflicted upon the insane in asylums are, unfortunately, often true. These patients are frequently the victims of abusive treatment at the hands of heartless attendants. It is not argued that this practice can be wholly prevented, because kind and intelligent nurses can not always be obtained. But it can be much reduced, if mechanical restraint is discarded, and superintendents and assistants will constantly supervise their patients. The most abuse occurs, though, in the absence of superior officers. And to break this up, the writer advises resort to a detective system. A male and female detective in the guise of patient or nurse should be employed, who should shadow the suspected attendant. If he is found guilty of violence or brutality, he should be prosecuted for misdemeanor and punished to the full extent of the law. A mere discharge from service will not answer. In this way it is believed cruelty could be reduced to a minimum.

The second part of the paper is devoted to a

brief consideration of the non-asylum insane, and the importance of reducing the supply to the increasing insane population, which now numbers about one hundred thousand in the United States.

(*a*) *Prevention of insanity* and (*b*) its prompt cure when developed, will accomplish this most desirable end, and are the two vital practical questions of the day for all alienists.

The people should be taught how they may prevent the approach of insanity, and avert it when threatening. A due observance of the laws of physical health in relation to mental conditions should be impressed upon them through popular journals and manuals on the subject.

The importance of treating cases in the incipient stage is especially urged, when there is every chance of cure. And this may be undertaken at home with many advantages, if physicians will acquaint themselves with the methods of the plan. It is practicable, and has proved successful in the hands of the writer and of many others. If for valid reasons this cannot be conducted, prompt consignment to private hospitals or asylums is advised.

The Treasurer, Dr. Benjamin Lee, then read his report.

Treasurer's Report.

Balance May 11, 1882	$1,965.68
Receipts during year	2,269.91
	$4,235.59
Expenditures during year	1,871.75

Dr. Peter D. Keyser, of Philadelphia, read a paper entitled

"SOME OPHTHALMOLOGICAL OBSERVATIONS DURING TEN YEARS' SERVICE (1872–82) IN WILLS EYE HOSPITAL."

During which time he had attending his clinic 5,243 patients, classified as follows: Affections of the lids, 390; of the lachrymal apparatus, 164; muscular and nervous affections, 202; anomalies of refraction and accommodation, 913; diseases of the conjunctiva, 1,211; of the cornea and sclerotica, 1,146; of the iris, ciliary body and choroid, 454; of retina and optic nerve, 211; of the crystaline lens, 230; of the vitreous body, 57; of the eye-ball, orbit, etc., 165. The number of operations performed during the same period was 1,282, among which were 148 extractions of cataract, 36 descisions of soft cataract, with four suctions by Bowman's pump; 164 iridectomies, 5 iridotomies, 11 Passavant's operation for posterior synechia, 1 Streatfield's for the same trouble, 92 tenotomies of recti muscles, 106 operations on the lachrymal apparatus, 200 operations on the lids, 87 enucleations of the eye-ball, 3 optico-ciliary section, 4 drainages after De Wecker, and 422 sundry operations on the cornea, conjunctiva, lids, etc. In the affections of the lids all the general forms of disease were more or less met with, and in the treatment of tarsal inflammation many cases were much benefited by De Wecker's method of the use of his pomade antiblepharitique, the odor of which, however, was so unpleasant that he (Dr. K.), with Mr. L. E. Sayre, pharmacist, of this city, made a new pomade, having the same medical effect and of much more pleasant odor, as follows: Oleopalmitate of lead, 20 parts; almond oil, 10 parts; simple cerate, 5 parts; balsam peru, 1 part; liquid tar, ½ part. In most, if not all, cases of this affection met with, anomalies of refraction were found, the correction of which was necessary to succeed in a permanent cure.

Descriptions of cases of entropion and ectropion are given. Epithelioma, when small, was benefited by topical use of powdered chlorate of potash.

In the treatment of conjnnctivitis, weak solutions of astringents instilled frequently into the eye were found more efficient than stronger solutions used once or twice daily.

In purulent and gonorrhœal forms, reliance was placed upon frequent cleansing of the eye and alternate instillation of saturated solution of boric acid and a weak solution of nitrate of silver.

Membranous conjunctivitis was treated successfully by a collyrium of chlorate of potash, hot applications and quinine and iron internally.

Of the conjunctiva is given a description of a fatty tumor of very rare occurrence, also a case of multitudinous recurring warts, also a double dermoid tumor of the conjunctiva and cornea.

Of rare affections of the cornea, six cases of keratitis bullosa are described, also a case of phosphatic degeneration of the external layers of the cornea. A very large tumor of the cornea with figure and microscopic description.

Glaucoma was treated by iridectomy, eserine instillations and sclerotomy. After considerable experience, iridectomy was found the most reliable for permanent success. Of the uveal tract an interesting case of iritis with gelatinous exudation, is described in full.

Two interesting cases of melanotic sarcoma of the choroid, one with metastasis and death, are reported with figures and microscopical drawings.

Sympathetic ophthalmia, with the history of case in which recovery took place.

Detachment of the retina was treated by several methods of operation, including De Wecker's drainage, and also the use of pylocarpin internally and hypodermically, but without any great permanent success from either method.

Several interesting cases of removal of foreign body from the eye-ball are given.

The inheritancy of congenital cataract is shown in a family, running successively through four generations.

The 148 cases of extraction of cataract are all described with the following result: as perfect success vn. to $\frac{20}{cc}$ 92 per cent. Total loss from sloughing and inflammation 6 per cent. Occlusion of pupil from iritis, which might have been improved had operation been consented to, 2 per cent. The acuity of vn. obtained as follows: $\frac{20}{xx}$ 4 cases—$\frac{20}{xxx}$ 12—$\frac{20}{xl}$ 23—$\frac{20}{L}$ 17—$\frac{20}{lx}$ 3—$\frac{20}{lxx}$ 22—$\frac{20}{c}$ 43—$\frac{20}{cc}$ 11—$\frac{10}{c}$ 1.

In the operations in the hospital, many different methods were tried, and fortunately with success, but after all, the preference was given to that of Von Graefe, with the incision of the cornea nearer to, if not in the corneal junction, instead

of as far back as recommended by him. In cases of sluggish iris and inflammatory dispositions, preliminary iridectomy was made some weeks previous to extraction. He describes a method and manner of opening the capsule which he finds lessens the danger of inflammation and necessity often of subsequent operations, and by which a large piece of the membrane in pupillary region is removed.

Two cases of fibro-myxoma of the optic nerve are quoted, as well as a cyst of the lachrymal gland successfully operated upon, and a polypus of the lower canaliculus extending out of the punctum.

Dr. Joseph Hearn, of Philadelphia, then read his paper on the "Cure of Rodent Ulcers," presenting two patients, who had been pronounced hopeless, but who, under Dr. Hearn's treatment, gave every indication of cure, and one patient, a lady, on whose face a rodent ulcer of five years' duration had been entirely cured.

Dr. Hearn said that cases treated early and promptly can be cured. These ulcers, which are called flat cancers, become malignant when not treated promptly. They usually begin with a hard nodule, or on a scar or wart, and not with an ulcer. Over this a crust forms, which leaves a depression, and this becomes an ulcer. The rodent ulcer is generally solitary, and generally comes about the face. The treatment is by caustic, knife, or both, the diseased tissues being entirely removed.

Dr. J. V. Shoemaker, of the Philadelphia Hospital for Skin Diseases, before reading his paper on the "Hair—Its Use and Care," introduced a patient from the hospital, whom he is now treating for lupoid growths, with success. The substance of Dr. Shoemaker's paper was as follows: "It requires both constitutional and local care to keep the hair in its normal healthy state. In the first place, that essential material, food, which is necessary to supply the waste and repair of all animal life, should be selected, given, or used, according to good judgment and experience. The nervous system, which is one of the most important portions of the human structure, and which controls circulation, secretion and nutrition, often by being impaired plays a prominent part in the production of baldness. The stiff hats, so extensively worn by men, produce more or less injury. Premature baldness most frequently first attacks that part of the head where pressure is made by the hat."

As regards the head-covering of women, the fashions have been for several years favorable to a proper form. The bonnet and hat have become quite small, and cover but little of the head. This beneficial condition, however, is in part counterbalanced by the weight of false curls, etc., with which women dress their heads. Ablution with soap and water should be performed once or twice a week at least, particularly to the head and beard, in order to keep open the hair tubes, so that they may take in oxygen, give out carbon, carry on their nutrition, and maintain the hairs in a fine polished and healthy condition.

It is injurious to both men and women to go into the surf having some wasting of the hair, without properly protecting it; the sea water has not, as is often thought, a tonic action on the scalp; on the contrary, it often excites irritation and general thinning.

In conclusion, if the hair becomes altered in texture, or falls out gradually or suddenly, or changes in color, a disease of the hair, either locally or generally, has set in, and the hair, and perhaps the constitution, now needs, as in any other disease, the constant care of the physician.

Under the head of Unfinished Business, the report of the Committee on Schedule of Subjects for Medical Examinations reported. Some debate followed, Dr. S. D. Gross declaring the standard proposed too high. He saw no use in stuffing a young man with Greek and Latin and Mathematics, compulsorily, to make a doctor of him, although a certain amount of these things is necessary to enable him to understand the technicalities of the profession. He thought private pupils shamefully neglected in nearly all cases.

Drs. Andrews, Bishop, Donnelly, Wilson, and others, spoke in favor of, and Dr. Tyson against the report. A general discussion followed.

Dr. O. H. Allis, the chairman of the committee, explained that the standard proposed in the report of the committee is simply that laid down in a resolution by this association in 1878.

Dr. William Finley, of Altoona, said this association had appealed to the colleges in vain for thirty-six years to raise the standard of admission to the profession.

The report of the committee was then adopted.

Dr. S. D. Gross then offered a resolution, which was carried, that this society request all county medical societies in the State to take measures to provide instruction for nurses.

The Committee on Medical Education then made a long report through its chairman, Dr. R. L. Sibbett, of Carlisle, which, after debate, was adopted.

Dr. Henry Leffman presented some reports and the following amendment to the By-Laws, offered by the Philadelphia County Medical Society:

Resolved, That no documents be presented before the State Society that have not been read before a county society and been recommended by said county society.

The resolution, according to rule, will lay over for one year.

Drs. Eskridge and Keen having refused to serve on the committee to act on the resolutions of the Anti-Vivisection Society, Drs. H. C. Wood and S. Weir Mitchell were appointed in their stead.

Dr. C. Z. Weber introduced the resolutions of respect and the address by Dr. Hiram Corson, adopted by the Montgomery County Medical Society, upon the death of Dr. David Schrack.

On motion, the resolutions were adopted and ordered to be incorporated in the proceedings, by a standing vote.

In the evening, receptions were held at the residences of Drs. J. K. Weaver and Mary Stinson, and G. W. Rogers, esq., of Norristown.

FRIDAY MORNING.

After prayer by Rev. A. J. Weddell,

The address on "Mental Disorders" was deliv-

ered by John Curwen, M. D., Superintendent of the State Hospital for the Insane, at Warren, Pa. In the course of his well-digested and interesting remarks, he said:

"The hereditary character of mental and nervous disorders and the necessity of careful regulation of the health of the mother during pregnancy, and the removal, as far as possible, of all causes of vexation and annoyance, to prevent as much as may be the influence on the child, and instances adduced where the health and mental integrity of the child were affected by causes acting on the system of the mother during pregnancy.

"It was urged on the profession to give more strict attention to the tracing out of the various histories of different cases so as to reach more certain conclusions as to the results of certain disorders and influences in the production of particular forms of disorder.

"The necessity of careful attention to the health of children, and the impropriety of placing them at an early age in school, was also insisted on so as to avoid that taxing of the mind and the interference with the bodily development so likely to arise from the confinement in school and inability to fix the mind on what was required to be learned. The first point to be aimed at was proper physical development.

"The training of the children should involve a thorough discipline in the education of the different faculties of the mind so that one class should not be educated at the expense of the other; that the states of feeling, including the passions and emotions, should be kept in subordination to the state of knowledge and the state of will. The tendency of the times is to give greater prominence by means of the books and other matters to the development of the passions and emotions, and on this account so many are unable to stand the wear and tear of life and fall victims to mental and nervous disorders, which could have been prevented by that attention to the proper regulation of these in connection with the development of the intellect and the will.

"The necessity of proper nutrition affording these elements most readily assimilated for the use of the different parts of the system, was also dwelt upon, and also the prime importance of an abundant sleep, not only in the early years, but throughout adult life.

"In school life it was insisted that what was taught should be well drilled in so that what is learned should be thoroughly learned, as it was better to know a little well, and so as to be of practical advantage in the duties of life, than to gain a large amount, so that in a short time it should be only a confused mixture in the mind and not of any practical benefit.

"Attention should also be given in education to the peculiar bent or aptitude of the scholar so that he shall not be compelled to give strict attention to what is distasteful, and not within his comprehension or above his capacity.

"Attention was also directed to the baneful influence of the use of tobacco on young men in the retardation of the proper growth and development of the mind, and its injurious influence on those who had been doing well, but were thrown back by its use.

"Reference was also made to the practice of other habits consequent on the character of the books furnished so generally for the young."

Dr. J. T. Eskridge followed with a paper on "Diagnosis, Prognosis and Treatment of Mitral Constriction," which will appear in full in our next issue.

"LITHÆMIA"

was the title of a paper by Dr. James B. Walker.

This term, first used by Murchison, is applicable to what may be termed a diathesis in which there exists a tendency to the undue production of uric or lithic acid, in place of the more fully oxygenated nitrogenous debris, urea.

Being less soluble and less readily eliminated than urea, it goes the rounds of the circulation, gathering as it goes, until it is present in the blood in sufficient quantity to constitute it a toxic agent.

As a toxic agent it gives evidence of its presence most characteristically by its circulatory symptoms. Stimulating the muscles of the arterioles to hyper-activity, either directly or through the influence of the vaso-motor system, it retards the egress of blood from the arterial system, leading to hyper-distension of the same. This calls for increased force of the left ventricle in emptying itself, and, through both agencies, we have the most pathognomonic symptoms, viz., the *pulse of high arterial tension.*

Increased arterial recoil induces, so long as the aortic orifice remains apatulous in diastole, an *accentuation* of the *aortic second sound.*

Increased arterial tension induces *increased urination.*

These constitute the essential symptoms of lithæmia, but to them may be added those due to functional or organic disturbance of any organ of the body. Bronchitis, pneumonia, emphysema, nervous disturbances of mild or grave character, including local cramps, tingling of extremities, numbness, vertigo, diplopia, headache, tinnitus aurium, and even insanity; angina pectoris, from the general arteriole spasm is not uncommon.

To the functional disturbances of the circulation are added arterio-capillary fibrosis, first clearly described by Gull & Sutton, which may extend to development of the fibrous tissues of organs, inducing especially interstitial nephritis, whose characteristic symptoms are those of the accompanying lithæmia. Atheroma of aorta, or of more or less of the systemic arteries, is quite common of cases of long standing, and by the danger in aneurism, apoplexy, thrombosis, and embolism, constitutes a serious pathological result. Or the uric acid may tend to deposit and excite irritation in the feeble circulation about the joint structures, resulting in an attack of gout. Or to be excreted in excess of the power of the urine to hold in solution, when uric acid gravel will ensue.

The *diagnosis* of Lithæmia rests on the presence of four prominent symptoms; viz.:

1. Pulse of high arterial tension, *i. e.*, persistent, hard and cord-like.
2. Accentuation of aortic second sound.
3. Hypertrophy of left ventricle.
4. Increased urination.

Given these persistently, or temporarily, re-

curring from slight causes, and we have Lithæmia, whatever else we may find to co-exist.

The *prognosis* depends upon the period of the disease. It is necessary to take an inventory of the amount of diseased and healthy structures present in each case, in order to form a just estimate of the prognosis.

If treated early, when only functional disturbances have been engendered, it promises complete relief. If organic changes have resulted, we have to that extent a permanent clipping of the organism.

The *Treatment* consists in

1. *Lessening* the *amount* of *nitrogenized detritus.* This, by diminishing the amount of animal diet to a minimum, meats either eschewed altogether or given in small quantity; milk in quantity is the best animal diet; vegetables ad libitum.

2. Bringing about as complete *combustion* of the *essential nitrogenized detritus* as possible that the uric acid may be converted into urea. Exercise and fresh air are the best agents for this.

3. *Rendering more soluble* and *more readily excreted* the *uric acid, which remains unaltered.* Lithium and potassium form with uric acid its most soluble compounds. These may be given as citrate or acetates in sufficient quantity and for a long period without injurious effects.

4. *Antagonize by physiological antidotes* the *more violent* and *severe symptoms.* Bromides, perhaps, the most serviceable for the nervous symptoms. For angina pectoris amyl nitrite is the remedy par excellence, given either internally or by inhalation, securing prompt relief. But as it is but palliative, its results must be secured by the bromide and other potassium salts.

This for the lithæmia. For the complex symptoms likely to arise, appropriate treatment is needed. What I wish to render prominent is the importance of finding behind and beneath the mass of pathological *debris* the morbific agent, and of attacking this, whatever else we may do or leave undone. I desire also to give prominence to the assertion that in chronic Bright's disease without dropsy, in atheroma of the arteries with cardiac hypertrophy, in angina pectoris, in apoplexy, and a host of functional disturbances, if the symptoms of lithæmia be present, and they usually will be, this is the condition against which therapeutic measures are to be leveled.

Dr. Edward T. Bruen, Demonstrator of Clinical Medicine in the University of the Pennsylvania, read a paper entitled

"CLINICAL NOTES ON THE USE OF CONVALLARIA MAJALIS."

In the present state of our knowledge of the action of convallaria majalis we are obliged to accept the records of clinical experience, even if they have been based on comparatively a few cases. There is all the more interest centered in this drug since it has been made of late the subject of very conflicting testimony from the physiological laboratory on the one hand, and from the bedside observation of the clinician on the other.

In 1851, G. F. Waltz discovered in the Convallaria Majalis two active substances—Convallarin and Convallamarin. The first is crystalline, insoluble in water, and according to Dr. Marmé's experiments (Schmidt's Jahrbuch), when taken in doses of three or four grains, acts as a simple purgative. The glucoside Convallamarin is soluble in water, and is the principle to which the plant owes its action on the circulation.

A synopsis of the action of Convallaria upon the circulation establishes, according to Marmé, that it kills by direct action on the heart, and in moderate doses first slows, then quickens the pulse. Previous divisions of the vagi do not interfere with the development of these phenomena. These observations have been confirmed by other investigators,* their experiments showing that it slows the action of the heart and increases the blood pressure decidedly. If a toxic dose has been given, the heart's beats become very rapid and irregular, the arterial pressure still being much above the normal, finally the pressure begins to fall, the cardiac pulsations to grow more feeble, and death occurs through syncope. The pneumogastric nerves are weakened but never paralyzed, whilst the general nervous system is not affected.

Dr. Isaac Ott (*Archives of Med.*, Feb., 1883,) has found that the arrest of the heart is systolic, the heart muscle not being able to respond to the most powerful galvanic stimulation. From this testimony it would seem evident that convallamarin acts almost exclusively upon the heart and its contained ganglia; possibly also upon the vaso-motor system.

Diuresis and purging have followed its use in the lower animals, and the drug is stated to have been long used by the Russian peasantry for the relief of dropsy.

This brief synopsis includes the most important facts from the physiological laboratory.

The following conditions have been chosen as typical ones illustrating clinically the employment of convallaria:

Case I was seen in consultation with Dr. F. W. Robinson, of Philadelphia, on March 10. The patient, a lady about thirty-five years of age, previously very robust, had been taken ill with pneumonia on the afternoon of the 7th. The earliest symptoms were those of intense pulmonary congestion; the surface of the body being cyanotic, and dyspnœa very pronounced. The lower part of the upper lobe and the inferior lobe on the left side were involved, also the base of the right lung. The interesting feature of the case was the action of the heart. From the first, this was extremely irregular and very rapid, about 120 per minute. Appropriate treatment was carried out during the 7th, 8th, and 9th, including bleeding from the arm; digitalis in full doses; strychnia, $\frac{1}{30}$ of a grain four times daily. Subsequently, the free use of cardiac stimulants. The irregularity of heart, if possible, became more pronounced, so that on the 9th the digitalis was discontinued, and the fld. ext. of convallaria in 15-drop doses every two hours was substituted. Within thirty-six hours the action of the heart became nearly regular, and the pulse fell to 80. The patient was roused from a state of impending death, and for a time we entertained hopes of recovery. When the convallaria was first given,

* Prof. See (Bulletin de l'Acad. de Med. No. 27, 1882) and S. Isaew, (Med. Schwabels Jahrb., 1883.)

the left ventricle was contracting vigorously through the effect of the digitalis previously used, but the gain had been solely in the direction of the increase in systolic muscular power. At the end of thirty-six hours after the use of the convallaria, the action of the ventricle having weakened, we combined the convallaria with the tr. digitalis with most satisfactory results so far as the cardiac action of these drugs was concerned; and the good effects persisted until the 16th, when the strength of the patient was exhausted and death ensued.

My first classification of conditions in which convallaria has been serviceable to me is:

(1) Those cases of acute disease of the lungs in which irregularity of the heart is a symptom. In these cases the action of the convallaria is helped by its combination with digitalis, the latter drug having a principal influence as a tonic to the cardiac muscle, the convallaria apparently exercising a principal influence upon the vagi, or at least it inhibits the cardiac rhythm.

(2) In organic valvular disease the convallaria is most useful in cases of mitral obstruction. In these the action of the heart is most apt to be irregular because the volume of blood returned to the left heart through the pulmonary circulation has not time enough to empty itself through the left auriculo-ventricular opening. Relief of pulmonary congestion is the most constant indication for treatment. This has been met by venesection, by cups, by rest, by digitalis; but since digitalis is more of a tonic to the cardiac muscle than a stimulant to the vagi, we often find its use unsatisfactory. The indication is to slow the rhythm of the heart, and thus permit the right heart and left auricle to empty themselves into the left ventricle; *afterwards* it becomes needful to administer cardiac stimulants. In the out-patient department of the Children's Hospital of Philadelphia, the treatment of cases of mitral obstruction with convallaria has been most encouraging, using ten drops of the fld. ext. three or four times per diem, with or without the associated use of digitalis.

(3) Irregular heart as a symptom of mitral regurgitation has been less positively benefited, since in these cases cardiac irregularity is a symptom of cardiac fatty degeneration. In mitral obstruction irregularity is an initial symptom.

(4) Convallaria loses its effectiveness in valvular heart-disease in proportion to the amount of fatty degeneration of the heart. Assuming as proven that the vagi are stimulated by digitalis, and that the reduction in number of the cardiac pulsations when digitalis is exhibited, is due to this stimulation, it has been commonly found that when there is advanced fatty change in the heart the inhibitory effects of digitalis are less perfect, since there is less muscle through which the vagi could assert their influence. Moreover, in fatty heart a more powerful cardiac stimulant, such as digitalis, is required and not a regulator. In advanced valvular heart-disease or cardiac failure in the catarrhal nephritic forms of Bright's disease, convallaria has not proven as useful as digitalis.

(5) The drug is of great service in cases where palpitation and dyspnœa, rather than deficient cardiac systole are the prominent features. Broadly speaking, cases of phthisis or asthma in which palpitation and dyspnœa are prominent symptoms, before cardiac failure from advanced fatty change ensues, are much benefited by this drug.

(6) Its effect is often brilliant in purely functional heart disorder, especially palpitation with irregular cardiac action dependent on general debility, and in cases of anæmia or hysteria. It is sometimes an efficient remedy in the irregular action of the heart caused by tobacco.

In conclusion, it is proper to state that the preparation employed has been the fld. extract. (Parke, Davis & Co.) The doses 15–20 drops given every three hours in adults, until the desired effects have been produced. Smaller doses have proven entirely negative. The drug is by no means a substitute for digitalis, which combines the properties of a cardiac tonic and regulator to a greater degree than any other one drug in our pharmacopœia. Convallaria has two great advantages over digitalis, which have been brought out by Beverly Robinson, M. D., in the *Medical Record*, for April 14, 1883.

(1) Convallaria is well borne by the stomach of most patients suffering with chronic cardiac disorders. The uræmic condition in advanced cardiac and renal cases will often account for its rejection.

(2) Cumulative effects are not to be apprehended. Nevetheless, the action is usually prompt and therefore a week or ten days' use will, I believe, decide positively the value in any special case. It would appear that the clinical action of Convallaria is not in direct harmony with the results of laboratory investigation and experiment. One must be cautious in closely pushing the deductions from experiments in the laboratory, until they are abundantly confirmed. Moreover, cardiac disorders present more cases of idiosyncrasy than other forms of disease, and we must expect to find some cases in which Convallaria is inoperative, although it is apparently indicated. Convallaria is far inferior to Digitalis as a diuretic; indeed, I have had such negative results that it is difficult to assign to it a distinct value in this connection. This presentation of a personal experience with Convallaria has seemed to me permissible only because the investigation of the drug is in such an incipient stage. May I hope that in another year additional results of experience in its use may be contributed, and the common good of the greatest number be advanced?

At eleven o'clock a special train conveyed the members of the Society, their wives, daughters and friends to the State Hospital for the Insane, in the southeastern district of Pennsylvania, or, as it is generally known, the Norristown Asylum, which is beautifully situated on the hills just outside of that city. Arriving a little before twelve, an hour was spent in a tour of some of the male and female wards, there being some 300 in the visiting party. The resident physicians showed the visitors through the peaceable wards, with results entirely satisfactory as far as the inspection went. No one could fail to be impressed above all things with the great cleanliness of the floors, walls, wood-work and furniture, and, indeed, of everything and everybody about the institution.

The most striking feature for a stranger, however, was unquestionably the vast area covered

by the hospital buildings. There are 960 inmates, male and female, black and white, yet there is no indication of crowding, and other buildings have just been completed, and are yet unoccupied.

After a substantial and well-arranged cold collation, in a long hall of one of the new buildings, the Medical Society reconvened in the Asylum Chapel, close at hand.

Dr. Benjamin Lee then read the report of committee appointed at the last meeting of the Society to memorialize the Legislature on the subject of the codification of the insanity laws, in which the committee stated that they found their action anticipated by Governor Hoyt, in his excellent creation of the Lunacy Commission. The report was received and the committee discharged.

Dr. William S. Little, of Philadelphia, read a paper on

"THE POSSIBILITY OF ABNORMAL OCULAR CONDITION THROUGH THE SYMPATHETIC SYSTEM IMPAIRING THE FUNCTIONS OF THE UTERUS."

After reviewing the influence diseases of the uterus and its appendages have upon the eye, beginning at puberty and continuing to the menopause, both in the non-pregnant and pregnant condition, as has been described by Prof. Förster, of Breslau, under the head of Hysterica Kopiopia and been fully corroborated by many observers, and more recently maintained in the Bradshaw Lecture before the Royal College of Physicians, England, delivered the past year by E. Long Fox, M. D., F. R. C. P., on the influence of the sympathetic on disease, in which he relates the influence of irritation from the hypo-gastric plexus affords the most striking illustration producing wide-spread and distant effects. Next, on the other hand, is taken up the influence the eye has when it is the seat of irritation from unnecessary effort in seeing, upon the nervous system and some organs of the body, as has some years since been promulgated by Dr. S. Weir Mitchell, and first tested by Prof. Wm. Thomson, M. D., and is now a very interesting field in ophthalmic medicine.

Dr. J. M. Duncan, of St. Bartholomew, while lecturing on the remote and indirect symptoms of the uterus and its appendages, asks the following: "Are there no uterine symptoms, or disorders, or diseases which are secondary to other diseases, indicative of them or caused by them? Should the uterus and its appendages be looked on as always governing and disturbing, and not itself occasionally governed or disturbed?

The purpose of the paper is to trace in one case at least, the possibility of reflex irritation as produced from a marked optical defect, differing in each eye; extending as far as the uterus and impairing the function; regions more approximate and other organs nearer the eye being markedly affected as well. In the case in question a married lady, 34 years of age, was seen in Feb., '81, suffering from severe headache, pain in eyes, pain down region of neck, gastric symptoms and marked hysteria. Examination of her eyes revealed a difference of refraction in each, one being hypermetropic with hypermetropic astigmatism, and the other having hypermetropic astigmatism.

Relief from nearly all the symptoms rapidly followed the correction of the optical defect. At the time of treatment no recognition was made of uterine trouble or impaired function.

It was not till some one year and a half afterwards, she being in the meantime perfectly well, that I learned she had given birth to a female child, the same not having occurred for twelve years, and the present being the second pregnancy; there had been no miscarriages.

The fact of this pregnancy having occurred so soon after the relief of her other troubles which had persisted so long, and been relieved by correction of her optical defect, has drawn my attention to the influence that had existed and re-acted as far as the uterus and impaired its function.

A paper entitled

"HYGIENIC MANAGEMENT OF CONSUMPTION; OR, HOUSE-PLANTS AND LUNG DISEASE,"

Was read by Dr. J. M. Anders, of Philadelphia.

As science develops, popular traditions often become disintegrated or vanish away. In the light of present knowledge there remains little room for doubt of the beneficial influence which house-plants are capable of exerting in the sick chamber.

In the first place, it seems incumbent to present a brief summary of the facts pertaining to the effects of plants in the air of houses, which have been established by my own researches.

First, that plants transpire (exhale) aqueous vapor with great rapidity, the rate having been carefully estimated at one-fourth ounce by weight per square foot of leaf surface for twelve diurnal hours.

Secondly, through this process of transpiration they have the power to increase the humidity of the atmosphere of an apartment to any degree that may be desired, by simply regulating the amount of leaf surface.

Thirdly, that the vapor emitted from plants is most probably changed and medicated to some extent by passing through the plant, and is presumed to possess greater sanitary value than ordinary humidity.

Fourthly, recent experiments by the writer, the results of which have not yet been published, render it highly probable that flowering plants have the power of generating and emitting ozone.

In a paper published by me in the *Philadelphia Medical Times* of May 8, 1880, the theory of their utility in lung affections was further supported by proof of a practical character. I propose to collect here all the histories thus far reported as bearing out this idea from a practical standpoint, in order that the profession may be able to judge more intelligibly as to the value of house-plants as hygienic or therapeutic measures in consumption. Whether or not we consider the theory of Koch as having been carried to a demonstration, the words of John Locke uttered long ago still hold with reference to phthisis, viz., that "prevention is better than cure," and far cheaper. Indeed, it is a question whether in this disease the only cure is not in most cases, I will not say all, prevention.

And should the careful observations of Koch be fully confirmed by future investigations, it is much to be feared that all efforts at finding a specific to destroy the parasite within the human body would be wasted on a forlorn hope. How to prevent the development of consumption should be a subject of vital interest to every practitioner of medicine, in view of the great prevalence and incurable nature of the disease, and also on account of the acknowledged fact that half, at least, of all cases are preventible. The family doctor very generally has an opportunity of knowing the inherited tendencies of his patrons, and should he be aware of the presence of predisposition to tubercular disease in a family, it becomes his duty to point out the danger and how to avoid it.

With no intention of underrating the importance of other measures usually recommended by writers for guarding against this dread disease, I wish to present here the evidence obtainable in favor of house-plants as preventive agents. In the article before referred to, are given the results of some practical observations bearing upon the same point, from which I shall have to borrow a brief summary. A visit was made to thirty florists and gardeners of Philadelphia, of whom twenty, with ages ranging from twenty-five to eighty years, are strong and vigorous, and have always enjoyed good health. They all work from ten to sixteen hours daily, and have followed this pursuit for from six to sixty years.

Two of this number, however, a father and a son, gave a marked family history of the disease in question, and have died of the disease after quitting their occupation. The father, although strongly predisposed to phthisis, followed the occupation of florist from early life up to the age of sixty, and during all those years was in good health. When sixty years of age, while he was assisting at the erection of a church, he met with an accident which injured his ribs and disabled him for work. But a few months later he went into consumption, which quickly proved fatal. Now, may not the fact that he was unable to be among his plants have had something to do with his last illness?

The son died at the age of thirty-six years. He was engaged in gardening from boyhood up to within a year of his death, continually at work among his plants. During all the time he followed this vocation, he enjoyed fair health. A short time prior to his death he forsook his calling and took a store in the same city, and almost simultaneously he became a victim to consumption, which caused his death in a short time.

During the spring of 1882 there came under my care a brother of the last patient, whose case has not been reported, giving the following history: He was thirty-six years of age; had lost his brother and father from consumption. He stated that he followed the occupation of florist and gardener from the age of fifteen years up to about one year previous to my having seen him; that he worked almost continually among his plants from eight to twelve hours daily, and during this whole period he enjoyed good health. He now abandoned his former calling; took a small store, and dealt only in cut flowers. After pursuing this business for a few months, his general health gradually failed, and cough set in, which gradually increased. Being of very careless habits, the patient neglected this cough for a long time, and when he first applied to me, the physical signs showed there was extensive softening of the upper lobe of the left lung and slight crepitation at the apex of the right one. The future course of the case was typical of phthisis, and terminated fatally about a year later.

The fact that these two brothers had followed floriculture for so many years in good health, and so soon after making a change in their occupation they both fell into consumption is, to say the least, very suggestive. The father, who continued his calling as a florist until late in life, escaped the disease until, as a result of an accident, he was incapacitated for work, when he shared the sad fate of his unfortunate sons. Is it not reasonable to believe that had not these young men deserted their plants they would likewise have escaped the disease, at least at so early a period?

A striking example of the value of plants in preventing the development of the disease in question is recorded by Dr. Ely McClellan, U. S. A., in the Philadelphia *Med. Times*, Feb. 26, 1881. He says: "For the past three years there has been almost constantly under my observation a case which seems to corroborate the views expressed by Dr. J. M. Anders in his paper on the Hygienic and Therapeutic Relations of House-plants—E. M., a gentleman thirty years of age, who belongs to a family in which there is a marked history of phthisis pulmonalis. His physique would indicate that he might be subject to the disease, but he has as yet escaped its development. The history of the case involves the families of both father and mother. The father, although born of tubercular parents, escaped the disease, but the mother died at comparatively an early age, leaving a family of five children, four of whom have died of consumption. Of these children three died between the ages of twenty and twenty-five years, one died in his thirty-ninth year after a long illness, the last two years of which were under my observation.

"E. M. is the youngest of the family. His life with the exception of the last eighteen months has been devoted exclusively to sedentary pursuits. At twenty-three he married, and as he was then engaged in an occupation which required his residence in an isolated locality, both for amusement and occupation, his wife began the cultivation of house-plants. She soon became an enthusiast, and a profusion of plants, especially the foliage varieties, accumulated in her house. As they resided in an extremely changeable climate, when during the cold months constant watchfulness was necessary for the preservation of plants, her bed-room and the adjoining sitting-room were arranged for that purpose.

"Before his marriage E. M. complained of, as he expressed it, a weakness of the chest and a constant liability to take cold. Since his marriage, with the exception of an occasional ailment, he has seemed a healthy man and it is but reasonable to attribute his escape from the disease which had destroyed so many of his family, to the fact that he lives and has lived for the past seven years in apartments well stocked with thrifty plants."

Four cases illustrating the value of plants as remedial agents in confirmed phthisis were next given, two of which have been under the writer's own observation; the history of one of these cases was received from my friend, Dr. Hiram Corson, of Conshohocken. The remaining one appeared in the *Christian Advocate* for July 29, 1880.

I have here given a number of cases tending to show the value of plants as preventive and remedial agents in phthisis, too few perhaps to furnish a basis for definite conclusions, still they seem to me of sufficient importance to call for more extended observation in this direction.

Whether we convert the sick room into a floral chamber, or resort to a neighboring greenhouse, such a refuge may be looked upon as a miniature health resort, and possesses important advantages over ordinary health stations. They are within reach of all, and every practicing physician is familiar with the fact that a change of climate is out of the question in many instances, for financial or other reasons. Again as it is well established that a change of climate is of no avail unless the new residence is more or less permanent, it is well to note that this inexpensive substitute does not entail prolonged separation from home comforts and social ties. It is recommended that the patient should assume a care of the plants which to most persons becomes a pleasing occupation, besides their cultivation and study are well adapted to relieve mental tension or depressing ennui.

During the warm season the patient can obtain the beneficial influence of the plants by the culture of flowers and plants and spending as much time as possible among them in the open air. It is not claimed for plants that they can rise to the position of a specific in this dread disease, but it would seem that they are capable of bringing about an arrest of the disease, or even cure in some instances with the aid of remedies and other sanitary precautions employed in such cases.

In order to obtain good results from this method, particularly when the living and sleeping rooms are taken as a refuge for the invalid, the cultivation of the plants, the extent of leaf surface, the size and exposure of the room, ought to be well understood and receive due attention.

As to the amount of plant life. And first in the selection of plants the following rules should be observed: "First, that they have soft thin leaves; secondly, foliage plants, or those having extensive leaf surface are to be preferred; thirdly, those which are highly scented (as the tuberose, etc.), should be avoided, because they often give rise to headache and other unpleasant symptoms."

As a broad rule it may be stated that a greater proportion of plants is essential in advanced stages, when cavities exist in the lungs, marked hectic fever or a highly sensitive nervous system, such a ratio as employed in Miss S.'s case, viz.; three dozen thrifty plants having a leaf surface of four square feet each, in a room twelve by twenty feet would produce an effect suitable in such cases. On the other hand in the earlier stages of chronic phthisis, as well as when cultivated as preventive measures, a somewhat less ratio might suffice.

It is important to maintain an equitable temperature (68° to 74° Fahr.) so that the air of the room may not have a chilling effect.

Growing plants doubtless have other spheres of applicability of almost equal importance to their value in lung disease but these cannot be discussed at present writing.

Dr. Benjamin Lee, of Philadelphia, submitted the following, which was directed to be published in connection with the report of the proceedings of the session:

Resolved, That this society, after listening to the numerous able papers upon the proper care of the insane, which have been offered during the present session, in which this important question has been discussed from every possible standpoint with the utmost freedom of expression and in a truly scientific spirit, consider the following conclusions justifiable:

First. That the problems connected with this subject are of so intricate and delicate a nature, interesting in themselves on the one side with the most sacred social and domestic interests of life, and on the other calling the highest order and scientific attainments of no mean value, that only those who have made them the subject of careful and conscientious study are competent to attempt their solution or to criticise those who are endeavoring practically to work them out.

Second. That the attempt to create the imputation that the incarceration of sane persons in institutions for the insane from improper motives, is one of the dangers of the day, is an unworthy aspersion upon onr profession and should be frowned down by all reasonable persons, whether lay or professional, as utterly unsupported by evidences.

Third. That in the Medical Superintendents of our Insane Hospitals and their assistant physician of both sexes, we recognize a body of workers second to none in our profession, in unselfish devotion to the interests of humanity, in elevation of motive and high standard of personal character and general attainment.

Fourth. That it is evident that, in order to place such institutions throughout our country in a position to properly fulfill their functions as hospitals for the treatment and cure of diseases of the brain, our State Legislatures must be made to feel the necessity for making such appropriations as shall greatly increase their medical staffs, and furnish them with all the necessary appliances for the investigation of disease. These resolutions were unanimously adopted.

Dr. Curwen offered by way of a resolution, that the president of the Society be requested to appoint a committe of three members on each of the following subjects: Medicine, surgrey, diseases of women and children, ophthalmology, nervous diseases, insanity, and idiocy. The duty of the committees shall be to prepare a series of questions calculated to obtain the history and treatment of the different forms of disease.

The following standing committees for 1884 were announced:

On Insanity and Idiocy—John Curwen, J. N. Kerlin and S. Schultz.

On Medicine—James Tyson, C. K. Mills and R. H. Chase.

On Surgery—R. J. Levis, S. M. Ross and James McCann.

On Diseases of Women and Children—A. H Smith, William Goodell and C. A. Rahter.

On Ophthalmology, etc.—C. S. Turnbull, P. D. Keyser and J. A. Lippincott.

Nervous Diseases—S. Weir Mitchell, J. L. Stewart and J. Z. Ziegler.

To deliver addresses for next year the following were appointed:

Medicine—M. H. Daly, of Pittsburgh.

Surgery—John B. Roberts, of Philadelphia.

Obstetrics—Jacob Price, of West Chester.

Hygienic and State Medicine—J. G. Lee, of Philadelphia.

Mental Disorders—Dr. Alice Bennett, of Norristown.

Ophthalmology in its Relation to Medicine—Dr. W. S. Little, of Philadelphia.

On motion of Edward J. Jackson, of West Chester, a vote of thanks was extended to the Montgomery County Society; to Drs. J. K. Weaver and Mary Stinson; to George W. Rogers, Esq.; to the Faculty of the Polyclinic College, and to the Hospital for Skin Diseases of Philadelphia, for their liberality and hospitality during the session of the State Medical Society.

A vote of thanks was subsequently tendered the Board of Trustees of the Hospital for the Insane for their kindness to the profession.

Dr. H. H. Smith, President-elect, was conducted to the chair, the retiring President, Dr. Varian, vacating a short time prior to adjournment.

At four o'clock, the session of 1883 was adjourned.

American Medical Association.

The next annual meeting of the American Medical Association will be held in Cleveland, June 5th to 8th, inclusive. All railroads west of Pittsburgh, Salamanca, and Buffalo, east of Chicago and south of Cleveland will carry delegates and members of their families to Cleveland at one full fare, and return them on certificate signed by X. C. Scott, M. D., Cleveland, as chairman of the Committee of Arrangements (certifying that they have been in attendance at the meeting of the Association) at one cent per mile. The trunk lines east of Buffalo, Salamanca and Pittsburgh, and lines west of Chicago, have refused to make any reduction. The rates per diem at the hotels will be: Kennard House, $3.00; Weddell House, $3.00; Forest City House, $2.50 to $3.00; American House, $2.50; Hawley House, $2.00; Striebinger House, $2.00; Clarendon House, $2.00, and Prospect House, $2.00.

Unhealthy Dwellings in Rome.

From an article by Dr. E. Sernicoli in a medical journal published in Rome, we learn some startling facts concerning the way in which the poor live. He visited one room, forty feet long, fourteen wide, and ten high, which was inhabited by twenty persons; and sometimes he would find as many as ten, fifteen, and even twenty persons living in two rooms, each of which was less than ten feet square. Many of them border upon close courtyards, to which the rays of the sun never penetrate, and in them the *cicorcari* or costermongers keep the fruit and vegetables they hawk about the streets for sale. If Dr. S. will honor us with a visit, we can show him equally unsanitary conditions in both New York and Philadelphia.

Greek Wines.

The *Am. Jour. Pharm.* says that *Greek wines* are now extensively exported to all parts of Europe, in consequence of the devastation of numerous vineyards by the phylloxera, which thus far has not made its appearance in Greece. It is more particularly the volcanic island of Santorin where many wines are produced, closely resembling those of Spain, Sicily, Southern France and the Cape wines; these wines are called vino santo. The concentrated, unfermented grape juice, known in Turkey as *betmese* (see *Amer. Jour. Phar.*, 1875, p. 534) is now largely exported to Central Europe, where it is fermented with juice of the native grapes, and thus employed for improving the more acidulous wines of more northern latitudes.

Who Discovered the Anæsthetic Properties of Ether.

Gaillard's Medical Journal says that Governor Stephens, of Georgia, made the proposition to place in the National Statuary Gallery at Washington the statue of Dr. Long, of Athens, Georgia, who was, said Governor Stephens, "two years ahead of Wells and Morton in his application of sulphuric ether for the relief of pain in surgical operations, and to whom, therefore, belongs the honor and glory of this greatest discovery of modern times." Dr. Long's claims as a discoverer were strongly advocated by Dr. J. Marion Sims some years since.

Medical Society of New Jersey.

The next annual meeting of the above Society will be held in Congress Hall, Atlantic City, on Tuesday and Wednesday, June 12 and 13, commencing on Tuesday, at 4 o'clock p. m.

A complimentary train over the West Jersey and Atlantic Railroad will be at Camden on Tuesday, at 12:15 o'clock p. m., in readiness to convey all to Atlantic City who may wish to attend the meeting.

WM. PIERSON, Secretary,
Orange, N. J.

Lectures on Orthopædic Surgery.

The Hospital Committee announce that Dr. A. Sydney Roberts will give a special course of lectures on "Orthopædic Surgery and Joint Diseases" at the Philadelphia Hospital. The lectures will be illustrated by numerous cases, specimens, and diagrams, and will be delivered in the clinical amphitheatre on Mondays and Fridays, May 4, 7, 11, 14, 18 and 21, at 4 p. m.

American Laryngological Association.

The Fifth Annual Congress of this Association will be held in the Hall of the Academy of Medicine, New York city, May 21, 22, 23. Dr. D. Bryson Delavan, of New York, is the Secretary.

Prizes.

The Spanish Medico-Chirurgical Society offers two prizes for the best treatises respectively on the Contagiousness of Lung Disease and the Formation and General Treatment of Hernia. The former prize will consist of 250 pesetas (about $45) and fellowship of the Academy; the latter of 750 pesetas ($135) and the fellowship. The essays must be written either in Spanish, Portuguese, French, or Latin.

Items.

—The American Medical Association meets June 5, 1883, at Cleveland, Ohio.

—An even temperature is necessary for the staining of the tubercle bacilli, say about 100° F., which can be obtained by means of a water bath.

—Dr. B. W. Richards, in a recent address, went so far as to declare that he had never seen a healthy child, nor one that had not in it either some ancestral or latent constitutional disease.

—In fifty severe cases of acute tonsillitis, due to exposure to cold, Mr. R. N. Hermazdi effected a rapid cure by the administration of twenty-grain doses of salicylate of soda every four hours. In no case did suppuration ensue.

—According to the *Louisville Medical News* the best application for ear-ache in children is a few drops of a warm solution of atropia, one to four, and allowed to remain ten or fifteen minutes, and then allowed to run out by turning the head over. Usually a few applications will suffice.

—The National Health Society, London, has introduced a form of garment, made of mackintosh, to be worn by those people who are compelled to enter the apartments of persons suffering from contagious diseases. Used in conjunction with a medicated cotton respirator, it is said to be a protection against contagion.

—At a recent meeting of the sanitary authorities of Darlington, England, it was reported that a gentleman from London had entered a house in the town, in which two persons had lately died of small-pox, and sold the furniture, although he was cautioned not to do so until it had been disinfected. Thirty cases of small-pox had since broken out.

—A hardware merchant of Liberty street, Pittsburgh, has become insane, and possessed of a most peculiar mania. He imagines that he is dead, and he will not take any food. He declares that as he is a corpse it would not be proper to eat anything, and his physicians have been compelled to pour soup and beef tea between his clenched teeth to prevent him from starving.

—The *Ceylon Observer* reports that the practice—now pursued for some years—of "shaving" bark off living cinchona trees has not been productive of any ill effects. On the contrary, the bark "renews," with even a larger percentage of alkaloid. Some trees have been thus treated on five successive occasions without their vitality having, to all appearance, been in the least impaired.

—Some statistics, just published, show that in 1870, the quantity of malt liquors, chiefly lager beer, produced in the United States, was valued at $55,000,000, while in 1880 the value reached the sum of $101,000,000. During the same period the increase in the production of distilled liquors was comparatively small, the value of the product being $36,000,000 in 1870, and $41,000,000 in 1880. The figures quoted show that whisky-drinking is giving way to the drinking of light beer—a fact which should be welcomed by the friends of temperance.

OBITUARY NOTICES.

JOHN CARY WHITING

Was born in Hampton, Va., July 3, 1834, and was educated at the Hampton Military Academy, under his uncle, Col. John B. Cary. He went South to Mobile, Ala., January, 1854, and studied medicine under the tutorage of Drs. J. C. Nott and H. F. Hustis. He entered the Marine Hospital at Mobile, 1855, as an interne; attended a course of lectures at the University of Louisiana, New Orleans, during the winter of 1857–58, and attended his second course of lectures at the University of Pennsylvania 1858–59, when he received the degree of Doctor of Medicine. He returned to Alabama in October, 1859, and began the practice of medicine in Baldwin county, continuing there until May, 1860. He then moved to Pensacola and married Miss Clara R. Hyer, June 21, 1860. In the fall of 1860 he located in Pensacola, conducted a drug business and practiced medicine. He entered the service of the Confederate States as assistant surgeon early in 1862, and continued in the service until the close of the war.

During his service he was promoted to the rank of surgeon and assigned to various stations—was at Montgomery, at Mobile in the Medical Director's Department, and at a camp of instruction in North Carolina, where he was taken prisoner, was exchanged, and afterward assigned to the hospital at Greenville, Ala., where he remained until the close of the war.

In September, 1865, he returned to Pensacola, where he resumed the practice of his profession.

Dr. Whiting was one of the founders of the institution known as the Pensacola Infirmary, which had its advent in 1868. In this he manifested a profound interest, and was diligent in the discharge of every duty connected with it, until a short time after the termination of the epidemic of yellow fever in the fall of 1882, feeble health compelled him to entrust it to the charge of one of his professional confreres, while he sought the beneficial influences of travel and a change of climate; in this he was unhappily disappointed. Returning to his home, he lingered, with occasional flattering hopes of recovery, until on the 16th of April he met his fate. He bore his sickness with patience and fortitude, and departed this life calmly and peacefully—without a struggle.

Dr. Whiting was devoted to his family, kind and attentive to his patients, and his many virtues won the love and esteem of all who knew him.